VANDERHOOF AREA CROWN LAND PLAN

Province of British Columbia
Ministry of Lands, Parks and Housing

HONOURABLE ANTHONY J. BRUMMET, MINISTER

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VANDERHOOF AREA CROWN LAND PLAN

prepared by

Lands & Housing Regional Operations Division,

Omineca Region, Prince George, B.C.

Province of
British Columbia
Ministry of Lands,
Parks and Housing
Victoria
1984

STATEMENT OF ADOPTION

The Vanderhoof Area Sub-District Crown Land Plan has been adopted by the Ministry of Lands, Parks and Housing and represents official Ministry policy for the planning, management and disposition of vacant Crown lands in the Vanderhoof Area.

All management, allocation and development actions and decisions of the Ministry within the Plan Area shall be guided by the provisions of this Plan and the Crown land designations shown on the Plan Map.

Conformance of Crown land proposals with this Plan in no way absolves a proponent from the responsibility of complying with all other pertinent government legislation and official Ministry policy.

Honourable Anthony J. Brummet
Minister of Lands, Parks and Housing

Aug 21/84
Date

NATURE AND INTENT OF THE PLAN

The intent of the Vanderhoof Area Crown Land Plan is to allocate all unalienated Crown land within the Vanderhoof Settlement Area to specified uses based upon a comprehensive analysis of resource and settlement capabilities. The plan will identify Crown land for disposition and development as well as for long-term resource management over the twenty year time-frame.

MINISTRY MANDATE AND PLANNING GOAL

The Ministry of Lands, Parks and Housing was established in 1978 with the mandate to allocate and manage unalienated Crown lands in British Columbia. The statutory basis of this mandate is the Land Act and the Ministry of Lands, Parks and Housing Act.

A major element of its responsibility is to provide opportunities for the use of Crown lands for agricultural, commercial, industrial, residential and recreational purposes.

The Ministry has established a Crown land planning program to assist in fulfilling its mandate and responsibilities. Its goal is to facilitate and develop plans for the management, use and alienation of unreserved Crown lands in a manner that will optimize the long-term economic, social and environmental benefits to the citizens of British Columbia. Fundamental to the Crown land planning program is the co-operation and involvement of other levels of government, provincial agencies, industry and the public-at-large.

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PART 1.0 GENERAL INTRODUCTION

1.1 Plan Area Location

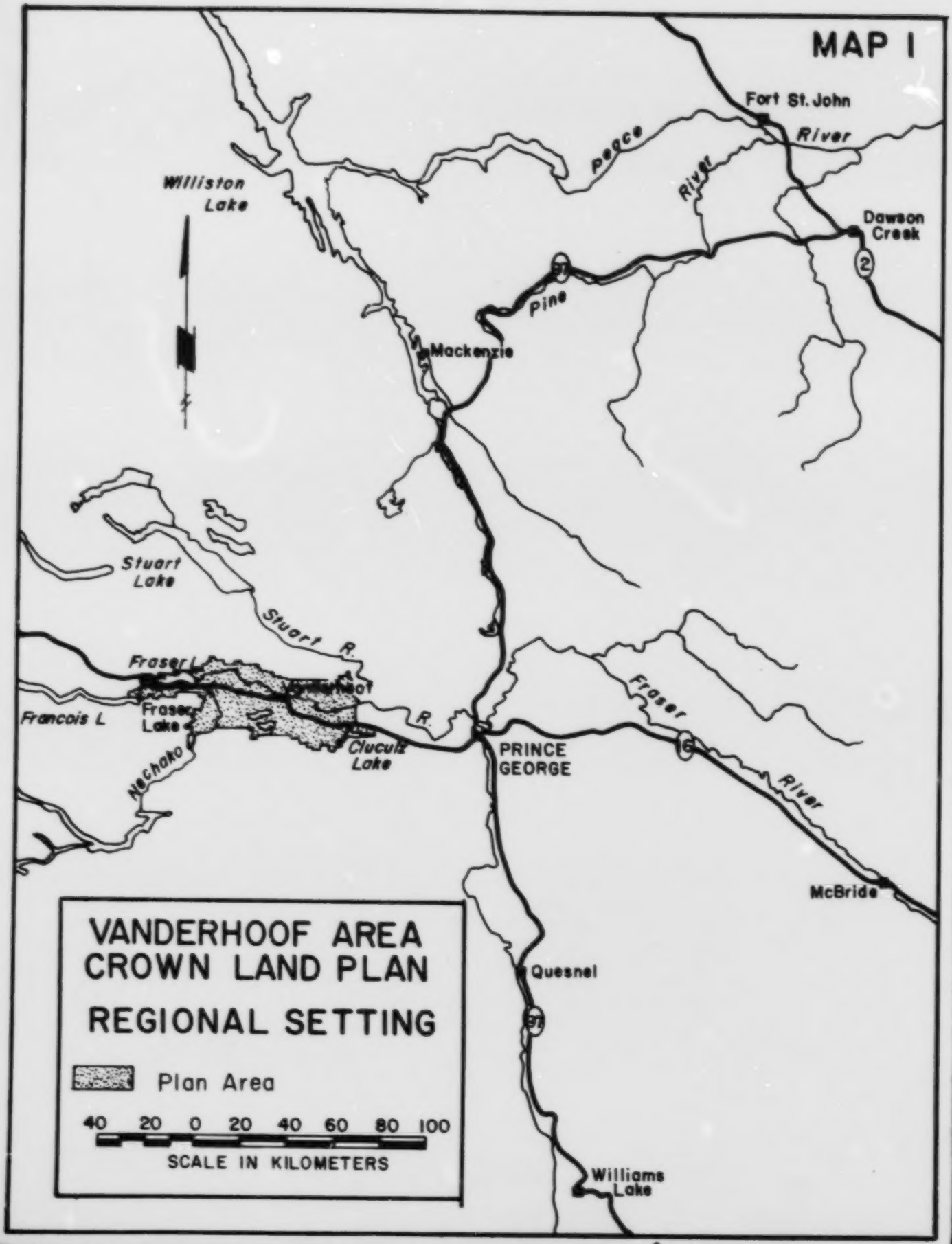
The plan area encompasses the Vanderhoof Settlement Area located in the Nechako River Valley of the Central Interior Region of British Columbia (Map 1). Excluding major lakes, rivers and municipalities, the plan area covers approximately 177,600 hectares, however, the plan only has jurisdiction over Crown land. This accounts for 29 percent, or approximately 51,710 hectares, of the entire Settlement Area (Map 2).

The plan area stretches roughly 95 kilometres from the Stellako River in the west to the Stuart River in the east and 30 kilometres between the provincial forest boundaries to the north and south. The District Municipality of Vanderhoof (population - 3,900), the largest settlement within the study area, is situated 100 kilometres west of the City of Prince George. Other settlements within the plan area include the Village of Fraser Lake (population - 1,250) and the hamlet of Fort Fraser (population - 500).

1.2 Background and Issues

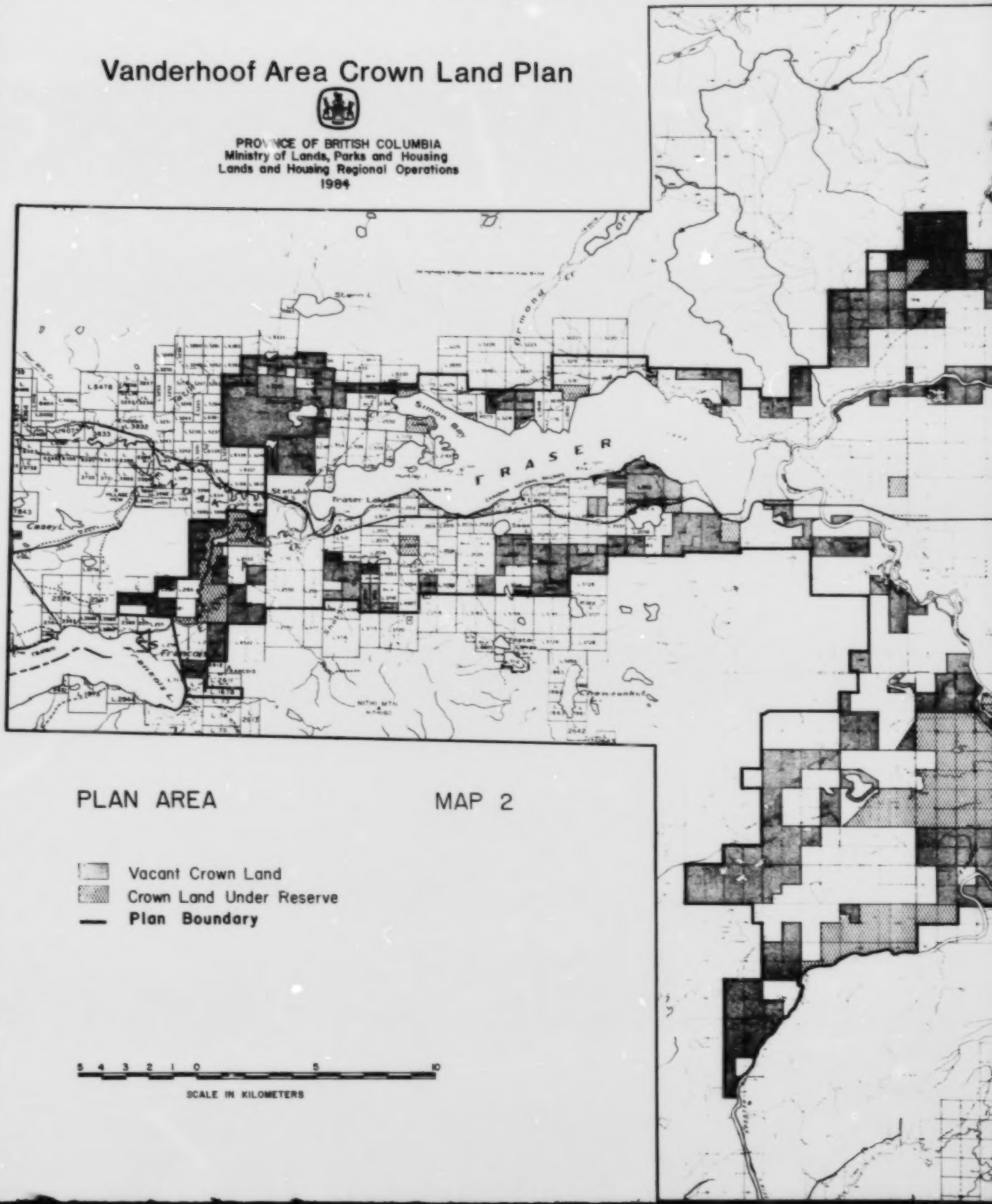
In 1970, the Department of Lands, Forests and Water Resources prepared the Vanderhoof Study No. 2, a general land allocation guideline for Crown land in the central interior of British Columbia. A chief concern was to provide, on a very broad scale, a guide for the allocation of Crown land between the agricultural and forestry resource sectors. This guide was the basis for the establishment of the Vanderhoof Settlement Area and the Nechako Provincial Forest Reserve.

A large percentage of the Crown land within the Vanderhoof Settlement Area has since been disposed for agricultural purposes and other land uses. Consequently, competition for the remaining Crown land base has become much more intense in recent years. This Crown Land Plan provides more specific guidelines for the future allocation, management and disposition of this dwindling uncommitted land base.


MAP 1
Fort St. John
Peace River
Williston Lake
Dawson Creek
Pine
Mackenzie
Stuart Lake
Stuart R.
Fraser L.
Francois L
Fraser Lake
Nechako R.
Cluculz Lake
PRINCE GEORGE
Fraser River
McBride
Quesnel
Williams Lake
VANDERHOOF AREA
CROWN LAND PLAN
REGIONAL SETTING
Plan Area
40 20 0 20 40 60 80 100
SCALE IN KILOMETERS

Vanderhoof Area Crown Land Plan

PROVINCE OF BRITISH COLUMBIA
Ministry of Lands, Parks and Housing
Lands and Housing Regional Operations
1984



PLAN AREA

MAP 2

Vacant Crown Land
Crown Land Under Reserve
Plan Boundary

5 4 3 2 1 0 5 10

SCALE IN KILOMETERS

NECHAKO FOREST

Vanderhoof

NECHAKO FOREST

The most pressing need of the plan is to identify all of the Crown land base which is suitable for agriculture. As is shown in later sections, activity in the agricultural industry suggests that there is a continued demand for Crown land for agricultural purposes.

A need also exists to identify Crown land for settlement related land uses (eg. rural residential, commercial, industrial). Although the private sector can presently supply a large amount of land for these purposes, suitable Crown land also needs to be identified. Crown land reserved for these purposes will supplement the activities of the private sector, particularly if short-falls should develop in the private market over the time-frame of the plan.

In addition to agricultural and settlement land issues, a number of other resource allocation issues must be addressed. These are summarized below.

(a) Aggregate sources are not abundant and the quality is not easily identifiable. Lands with a high content of quality aggregate resources should therefore be identified to help meet future needs.

(b) The lack of public recreational lands is of concern to local residents.

(c) Community pastures and range use are important components of the agricultural land base. Efforts need to be made to accommodate the use of range lands.

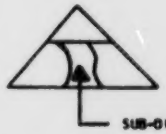
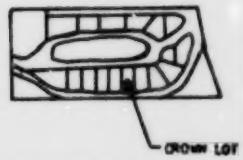
(d) Crown land with high fish and wildlife values must be protected to ensure the well being of healthy fish and wildlife populations.

(e) The need to designate lands which are highly suitable for timber production is important to the area forest industry.

1.3 Sub-District Crown Land Planning

Crown land planning conducted by the Ministry of Lands, Parks and Housing (MLPH) is organized according to a hierarchy of activity levels (Figure 1). This plan has been prepared as a Sub-District Crown Land Plan.

FIGURE 1
SCHEMATIC OUTLINE OF THE
CROWN LAND PLANNING HIERARCHY

PLANNING SCALE		1:500,000	1:250,000	1:50,000	
MINISTRY PLANNING UNIT	PROVINCE	LAND ADMINISTRATION REGION	LAND ADMINISTRATION DISTRICT 	SUB-DISTRICT	DEVELOPMENT AREA 
MINISTRY PLANNING ACTIVITY	**PROVINCIAL POLICY POSITION PAPER** . Broad goals & objectives for all unalienated Crown lands . Recognition of regional diversity . Integration with inter-ministry planning . Provincial policy for Crown land use	**REGIONAL CROWN LAND STRATEGY** . Adaption of provincial goals and policies to each resource management region . Formulation of strategy for integrated use/management of Crown land in region . Identification of land planning and disposition targets . No land use designations at this level . Integration with inter-ministry planning	**SUB-REGIONAL CROWN LAND PLAN** . Application of regional strategy to each land district . Statement of demand and supply characteristics for Crown land . Identification of resource priority areas and use policies . Map of resource priority areas not secured under legislation **SUB-REGIONAL PLANNING STUDY** . Adaption of regional strategy . Planning problem research and analysis for broad areas . Regional and district policy direction . Data inventory useful for sub-regional plans . No Crown land use designations	**SUB-DISTRICT CROWN LAND PLAN** . Identification of most suitable Crown land uses . Formulation of policies, programs & responsibilities for selected management & development areas according to sub-regional priority . Inclusion of Level of Vanderhoof Area Project detailed plan components . Plan formally adopted and detailed designations secured under the Land Act **INTERIM CROWN LAND USE AGREEMENT** . Multiple use conflict resolution through short-term interagency agreement . Management direction for agencies and map of areas affected . Specified intent to prepare Crown land plan at later date . Map areas not secured under legislation **SUB-DISTRICT PLANNING REPORT** . Single use conflict resolution or single use planning requirement in portion of district . Management recommendations or alternatives for resolution, possible map of areas affect . Map areas may be secured under legislation . Data inventory useful for sub-district plans	**OPERATIONAL CROWN LAND PLAN** . Site development programs for specific use indicated in sub-district plan . Specific or associated uses identified . Services, setbacks, design standards and staging indicated Level of Vanderhoof Area Project

Generally, planning activities at the provincial, regional and even sub-regional levels involve the formulation of land use and resource strategies and policies. At the sub-district level of planning, land allocation decisions are made based on a detailed assessment of land use capabilities, suitability factors and provincial policies. At the base of the hierarchy is the Operational Crown Land Plan which sets out specific site development programs.

The Sub-District Crown Land Plan is a comprehensive document which addresses the following headings:

(a) issues, goals and objectives;
(b) the planning process;
(c) base information and data;
(d) analysis and interpretation;
(e) recommended concept plan with policy guidelines; and
(f) public participation.

An integral component of the planning process involves the establishment of an inter-agency task force to assist in the formulation of the plan. Each agency has provided background information and outlined concerns with regard to their specific interests. Another important step in the process was the public participation program. The input provided through these two forums has helped to ensure that the plan achieves a balanced resolution to the wide range of land and resource issues.

The planning process followed in this study is outlined in Figure 2.

1.4 Plan Goal and Objectives

1.4.1 Plan Goal

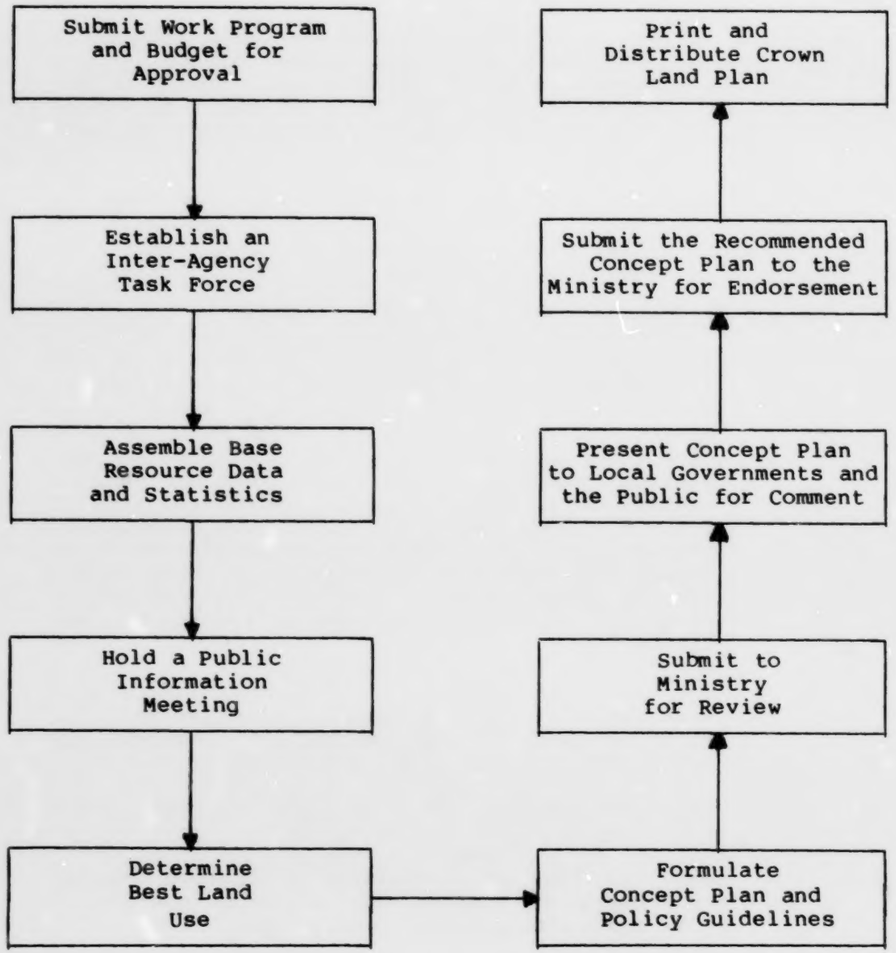
TO PREPARE A SUB-DISTRICT CROWN LAND PLAN FOR THE VANDERHOOF AREA (OMINECA REGION) WHICH WILL GUIDE THE ALLOCATION, MANAGEMENT AND DISPOSITION OF CROWN LAND.

1.4.2 Plan Objectives

(a) To resolve existing land/resource use conflicts in the plan area by allocating unalienated Crown land to its most suitable uses based upon biophysical, socio-economic and land use criteria.

FIGURE 2

THE SUB-DISTRICT CROWN LAND PLANNING PROCESS


Submit Work Program and Budget for Approval
Establish an Inter-Agency Task Force
Assemble Base Resource Data and Statistics
Hold a Public Information Meeting
Determine Best Land Use
Formulate Concept Plan and Policy Guidelines
Submit to Ministry for Review
Present Concept Plan to Local Governments and the Public for Comment
Submit the Recommended Concept Plan to the Ministry for Endorsement
Print and Distribute Crown Land Plan

(b) To facilitate program co-ordination of various government ministries within the concept of an interagency planning process for Crown lands.

(c) To establish guidelines and policies for the management and development of Crown land designated for specific uses.

(d) To prescribe permitted uses and management or development guidelines within designated portions of the plan area in order to reduce adjudication time and minimize interagency referrals of Crown land applications.

(e) To establish, for areas suited to development, guidelines for the disposition of Crown land and for the preparation of development plans.

1.4.3 Limitations of the Planning Study

All three settlements within the study are highly dependent on employment generated through the resource sector, particularly agriculture, mining and forestry. Since employment is subject to unpredictable fluctuations, precise population projections are impossible to derive. Consequently, specific supply and demand studies for rural residential lots were not undertaken. Rather, land requirements for settlement purposes were established for a broad time period (twenty years) through the analysis and interpretation of relevant background information and trends.

The study was subject to a number of limitations with regard to the designation of Crown land for specific resource uses, particularly agriculture and forestry. The primary limitations are:

(a) the absence of a specific regional strategy;

(b) the lack of a reliable evaluative methodology to compare the economic benefits of agriculture and forestry; and

(c) the lack of knowledge of the level of management or efficient utilization of existing resource operations.

These limitations, however, were not significant in this exercise. While both industries have a very sound base in the Vanderhoof area, the Vanderhoof Study No. 2 and the subsequent delineation of the Provincial Forest Reserve indicated settlement orientated land uses would have the priority in those areas excluded from the Provincial Forest Reserve.

The Task Force was in agreement at the outset of the study that due to the nature of development within the settlement corridor, the highest and best land uses are generally agriculture and settlement land uses (i.e. rural residential, commercial, etc.). Therefore, suitable lands will, in most cases, be designated for these purposes; the remaining Crown land base will be designated in accordance with the next highest and best land use values. Thus, the absence of a regional strategy and a comparative methodology is not of major significance.

With regard to the efficiency of existing private resource operations, specific data is not available, however, the apparent utilization levels of private holdings will be taken into account in land use decisions.

Land use decisions involving grazing were complex, largely due to the existing framework of mandates and policies of the Ministries of Lands, Parks and Housing and Forests.

A further limitation to resource management stems from the small amount of unalienated Crown land in relation to the total plan area. Some management programs may be foregone because of this high percentage of alienated land.

PART 2.0 CHARACTERISTICS OF THE PLAN AREA

2.1 Environment and Resources

2.1.1 Physical and Environmental Features *

The plan area falls within two distinct physiographic regions. Most of the land surrounding Vanderhoof lies within the Nechako Plain of the Fraser Basin. The western portion surrounding Fraser Lake is part of the Nechako Plateau.

Surficial Deposits:

Physiographic features are primarily attributed to glacial modification which was active over the entire plan area in recent geological time. The topography of the Nechako Plain is level to moderately rolling reflecting its glaciolacustrine origins. Rivers and streams have since incised deep channels into the plain. Glacial till is the dominant surficial deposit along the periphery of the study area and around Fraser and Cluculz Lakes. The topography of these areas is more severe and is frequently interrupted by rock outcroppings. Elevation ranges between 625 and 1,050 metres a.s.l., however, the Nechako Plain has a narrower range of between 640 and 800 metres.

Drainage:

The plan area is drained primarily by the Nechako River and its small tributaries. The only major tributaries are the Stellako/Endako/Nautley River system in the vicinity of Fraser Lake and the Stuart River which forms part of the northeastern boundary, both of which drain a relatively small portion of the plan area. The water quality of these two tributaries is very high providing excellent opportunities for recreation and as fish and wildlife habitats. The water quality of the Nechako River, on the other hand, has been significantly diminished as a result of fluctuating flow volumes arising from the Alcan water management operations at the Kemano Reservoir.

* The text in this section draws extensively from Soils of the Nechako-Francois Lake Area, Interim Report, Soils Branch, Department of Agriculture, Kelowna, B.C.

Surface Waters:

The main waterbodies are Fraser Lake and Cluculz Lake. Fraser Lake is located at the western extremity of the plan area within glaciolacustrine deposits and bedrock formations. Cluculz Lake, located at the eastern extremity, lies within glacial till deposits.

Fraser Lake is large, has a relatively good water quality rating and has a moderate flushing rate, yet it has a significant growth of lake vegetation along the shore. The Ministry of the Environment has studies underway to investigate the cause of the plant growth and to assess whether the situation is intensifying. The preliminary indication is that the vegetation growth results from an accumulation of factors including a shallow lake bottom along the shoreline and a significant phosphorus load. The phosphorus arises from a number of sources including in-flowing streams, lake bottom geology, the recycling of biotic minerals and sewage input by the Village of Fraser Lake and other lakeshore development. It must be emphasized, however, that the Village accounts for only 10 - 15 percent of the lake's phosphorus loading and that the phosphorus levels are not considered to be beyond safe levels for human consumption. Generally, the recreational potential of the lake is very high despite the negative effect the lake vegetation has on recreational activities such as swimming and on the aesthetics of the lake.

The location of Cluculz Lake within glacial till deposits means it is oligotrophic (deep, cold and relatively clear of nutrients and excessive vegetation). Though it does not have an excessive phosphorus load, its low flushing rate means it could be subject to pollution with only moderate shoreline development. Furthermore, it is subject to excessive algae growth in hot weather.

Tachick, Nulki and Sinkut Lakes are three other large lakes within the plan area. Since these lakes are within the Nechako Plain, they are shallow and eutrophic and, as such, are not very attractive for lakeshore development.

Geological Features:

Bedrock geology is evident only around Fraser and Cluculz Lakes and in select locations along the periphery of the plan area. It consists of a complicated array of sedimentary, extrusive and to a minor extent intrusive rocks and their metamorphosed counterparts. Though these rock formations are known to have a good potential for mineral deposits consisting of various combinations of gold, silver, lead, copper, zinc, molybdenum and niobium, the likelihood of finds in the plan area is quite low simply because of the small area of rock outcropping.

Since most of the plan area is composed of lacustrine deposits of up to 80 metres in depth, the potential for discovering further aggregate reserves is quite low. Most of the shallow deposits of glacial till on the plain have either been fully mined or are presently reserved for sand and gravel removal (or are located on private land). A similar situation is seen with the alluvial deposits along the Nechako River. Areas which demonstrate at least some potential for aggregate resources are shown on Map 3. Otherwise, the highest potential for aggregate resources is within the glacial till deposits located within the Provincial Forest Reserves on all sides of the plan area, however, hauling costs will be very high.

Other potential mining activities include placer mining along the various rivers and streams and limestone mining along a large ridge northeast of Vanderhoof.

Generalized Soils:

The main soils of the plan area include Orthic Gray Luvisol, Gleyed Orthic Gray Luvisol and Gleysolic formations. They developed on glaciolacustrine, glacio-fluvial and glacial till deposits under both coniferous and deciduous forest cover. These soils combine to form either the Vanderhoof, Berman or Pineview Associations. Barret Associations are the most predominant soil types on the till deposits.

Vanderhoof Area Crown Land Plan

PROVINCE OF BRITISH COLUMBIA
Ministry of Lands, Parks and Housing
Lands and Housing Regional Operations
1984

PLAN AREA

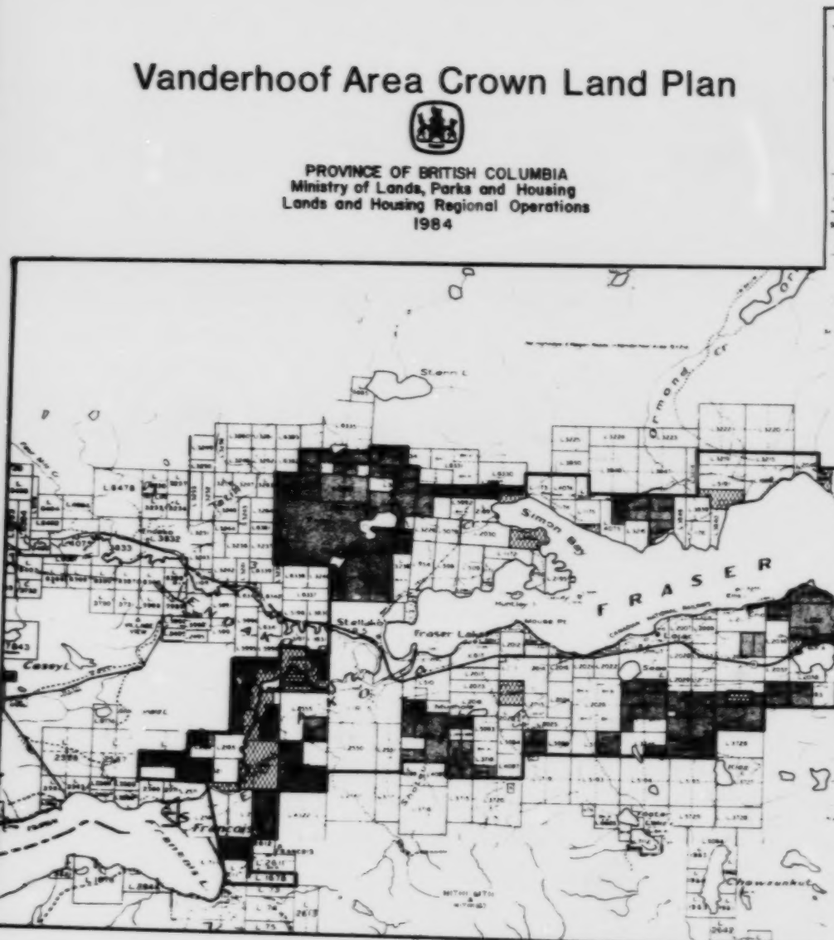
MAP 3

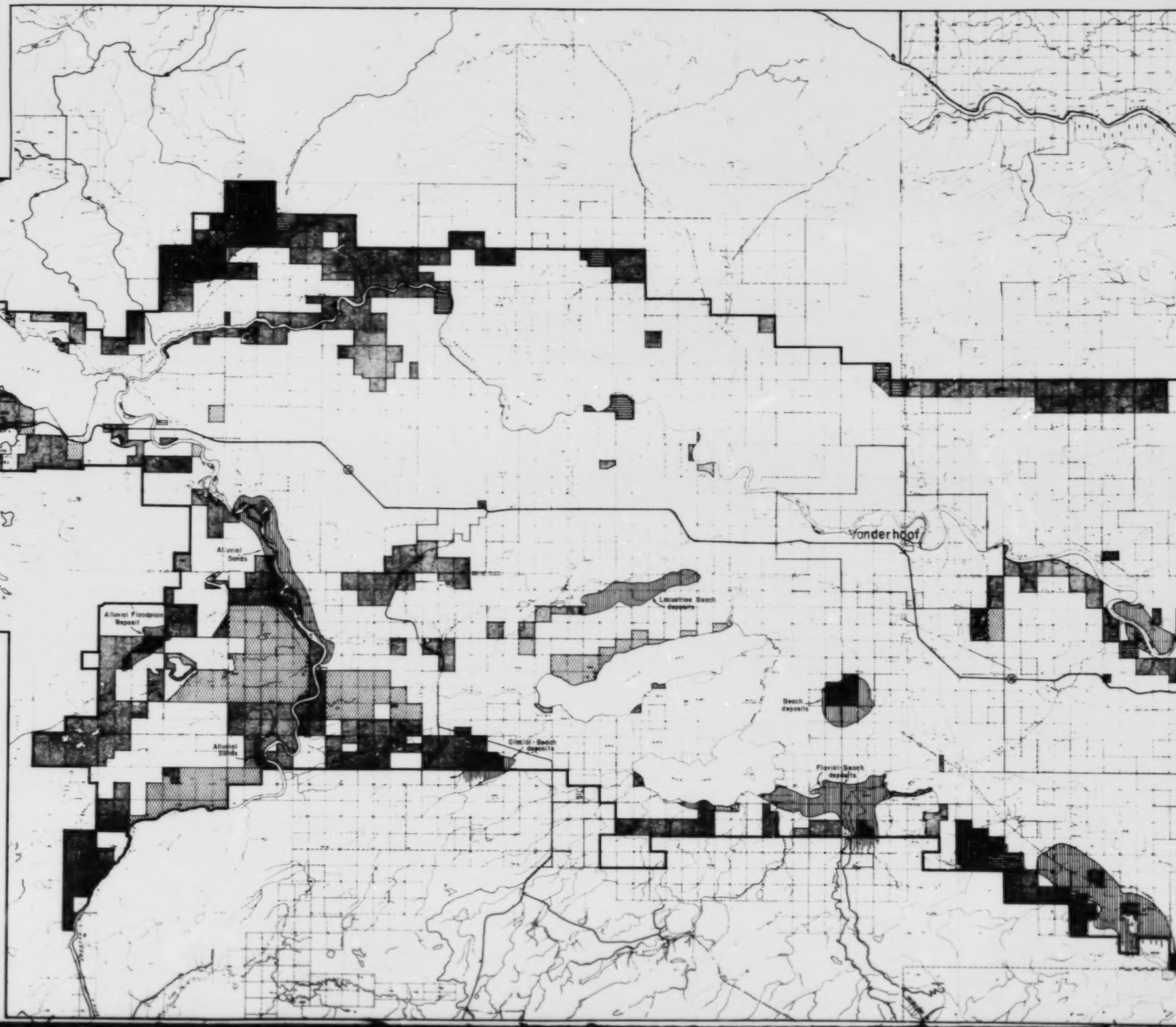
AGGREGATE RESOURCES

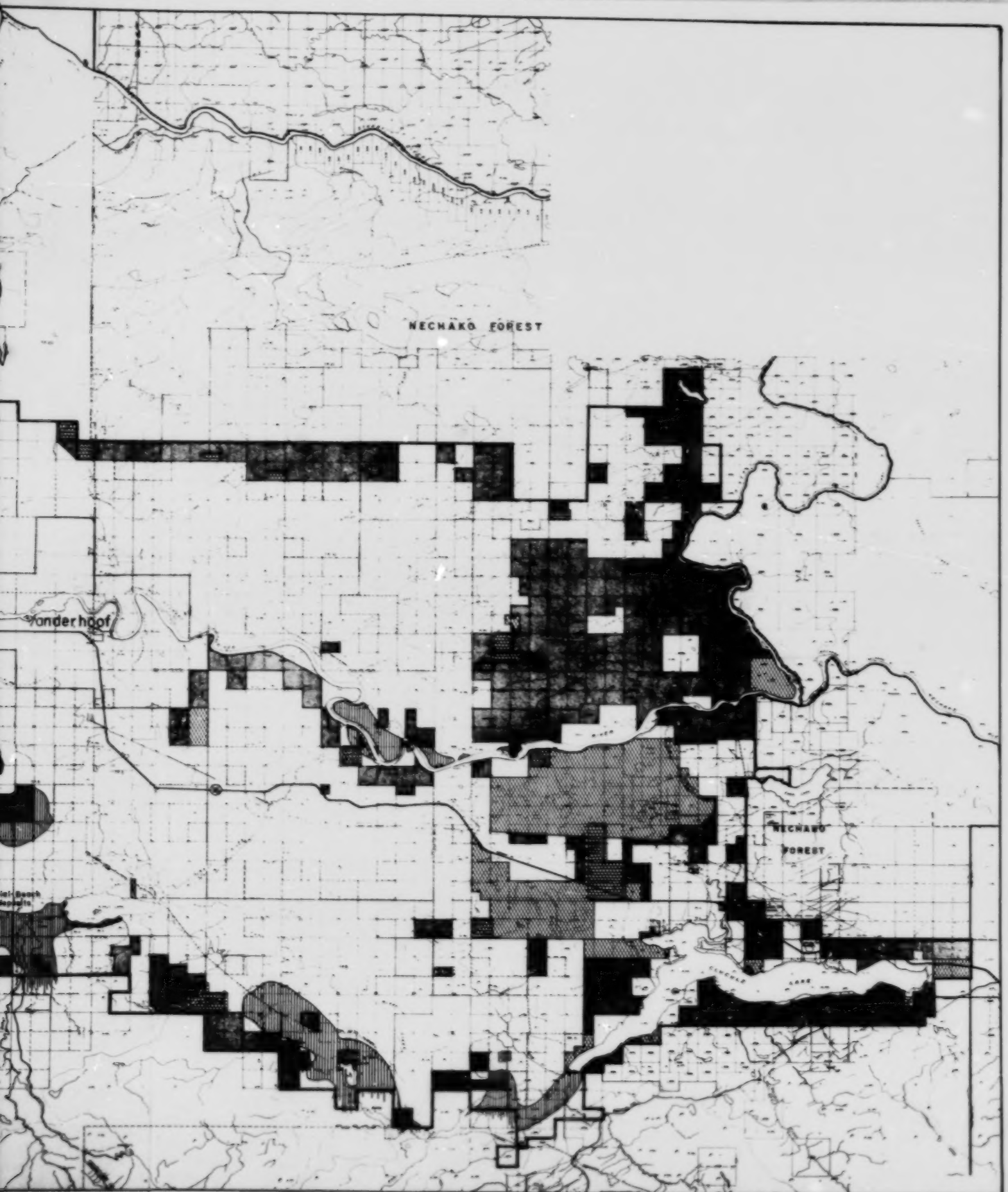
- Vacant Crown Land
- Crown Land Under Reserve
- Sand & Gravel Reserves under Section 12, Land Act
- Potential Aggregate Sources

5 4 3 2 1 0 5 10

SCALE IN KILOMETERS






NECHAKO FORESTER
Vanderhoof
NECHAKO
FOREST

Climate:

Climate in the Central Interior is typified by warm summers, long, cold winters and moderate precipitation. Average daily temperatures range from -12° C. in January to 15° C. in July. Mean daily maximum and minimum temperatures are provided in Table 1 along with mean total precipitation and mean snowfall figures. Precipitation is moderate throughout the area with an annual average of 456.6 millimetres. The frost-free period is very short, averaging only 52 days.

TABLE 1
CLIMATIC DATA
VANDERHOOF AREA

TIME PERIOD	MEAN DAILY MAX. TEMP. (C°)	MEAN DAILY MIN. TEMP (C°)	MEAN TOTAL PRECIPI-TATION (mm)	MEAN SNOWFALL (cm)
January	- 6.8	- 17.1	46.5	15.5
February	- 0.6	- 12.9	33.5	29.5
March	3.8	- 9.2	23.4	18.5
April	10.6	- 2.9	19.6	6.1
May	17.2	1.0	28.2	1.0
June	19.8	4.7	44.2	0.0
July	22.8	6.6	44.2	0.0
August	21.6	5.3	41.7	0.0
September	16.7	1.9	39.6	0.8
October	- 10.1	- 1.2	39.4	7.1
November	0.9	- 7.8	42.7	24.7
December	- 5.0	- 14.0	53.6	45.2
Year	9.3	- 3.8	456.6	183.4

Source: Agricultural Profile, Vanderhoof District, B.C. Ministry of Agriculture and Food, March, 1980

2.1.2 Forest Resources *

The climax vegetation characteristics of the plan area are predominantly those of the Sub-Boreal Spruce Zone. The zone extends to approximately 1,100 metres (the Englemann Spruce-Subalpine Fir Zone extends from 1,100 to 1,525 metres). Three subzones are represented within the plan boundary.

The most wide-spread subzone is the SBSd (dry-cool central). The major tree species of the SBSd include hybrid white spruce, lodgepole pine, trembling aspen and black cottonwood. Black spruce, subalpine fir and paper birch are minor species and Douglas fir is common only in the vicinity of Francois and Fraser Lakes. The most common cover types are pine-spruce or pine-spruce-aspen mixtures.

The SBSk3 subzone (dry-warm southern, Stuart River varient) occupies a large portion of the eastern half of the study area. The major tree species of the SBSk3 are lodgepole pine, hybrid white spruce and Douglas fir. Black spruce occurs in combination with lodgepole pine in upland forests as well as in wetlands. Paper birch, trembling aspen and subalpine fir are generally minor species occuring in combination with one or more of the previously mentioned conifers.

The third subzone, the SBSe, (moist-cool central), is confined primarily to the higher elevations. Subalpine fir, hybrid white spruce and lodgepole pine are the major coniferous tree species. Black spruce, while common in wetlands, is infrequent but locally abundant in upland forest. Trembling aspen is a widespread seral deciduous species. Paper birch and black cottonwood are uncommon.

* The forest resource subzone descriptions are partially drawn from the review draft Ecosystem Classification and Interpretation of the Sub-Boreal Spruce Zone, Prince Rupert Forest Region, B.C.

The natural climax forest has been extensively altered in most of the plan area. A large area has been removed from forest production for urban settlement and agricultural purposes. Almost all of the remaining Crown land forests have a history of private or commercial harvesting or of forest fires. Consequently, the timber stock age, height, quality and value varies considerably from parcel to parcel.

In general, a substantial proportion of this land base has a medium to good stock of timber. Hence, this land base is an important source of timber for forestry programs such as the Small Business Program, as well as for established forestry companies. More specific details of timber stock values for portions of the study area are provided in Appendix A.

The Canada Land Inventory (CLI) assigns a moderate yield forest capability (class 4) to the majority of the plan area. Lands with a limited yield forests capability (class 5) also make up a large portion of the land base. Pockets of high yield forest land (class 3) and non-productive forest land (class 6 and 7) associated with more extreme physiographic features, such as flood plains or bogs, are scattered throughout the area.

Though the CLI ratings provide a good overview of forest capabilities in the region, the system is too general to be used as the chief criterium for land allocation decisions on a quarter section basis or smaller. The CLI ratings are based on the interpretation of the 1953-55 air photo coverage summarized onto a 1:63,360 map series. While the CLI system is useful for medium or small scale planning projects where the objective is to devise general land allocation strategies for large tracts of Crown land, it is not as useful for site specific allocation projects such as this.

The Ministry of Forests has concentrated efforts on updating and improving the forest cover mapping series rather than CLI maps. These maps describe in detail several features of the existing forest stands including species composition, age, height, growth characteristics and site conditions.

Using these forest cover maps in conjunction with air photos and topographic maps, the Ministry of Forests is able to interpret forest land capabilities more specifically than the original CLI series.

2.1.3 Range Resources

Rangeland is an important component of the area agricultural industry. Over ninety percent of the Crown land in the Settlement Area is covered by some form of range tenure.Primary among these are the Kori and Wren Pastures and the Lily Lake, Tachick Creek grazing reserves. In addition to these large community grazing areas, numerous individual grazing tenures can be found throughout the Settlement Area. These tenures usually consist of either one to five year grazing permits or ten year grazing licenses.

The rangeland capability of the study area is difficult to assess because it is directly related to specific tree cover types. Deciduous forests, aspen in this region, offer the best rangeland opportunities, however, coniferous forests can also provide fair range values. The implementation of range management plans over either deciduous, coniferous or mixed forests can substantially improve rangeland values.

The Ministry of Forests calculates the forage productivity of each individual grazing tenure. The productivity is described in animal unit months (AUM).* Though this term is similar to capability ratings, they are sufficiently unique to prevent direct comparisons. The AUM rating refers more to existing productivity rather than the long-term potential inferred in capability ratings. The Ministry of Forests has evaluated rangeland values by calculating present AUM's and projecting the unit's future importance or potential AUM's. These are described for portions of the study area in Appendix B.

* The working definition of an AUM is "the amount of forage that:

(i) one cow/calf unit;
(ii) one yearling or horse;
(iii) one bull;

consumes in one month".

2.1.4 Agricultural Resources

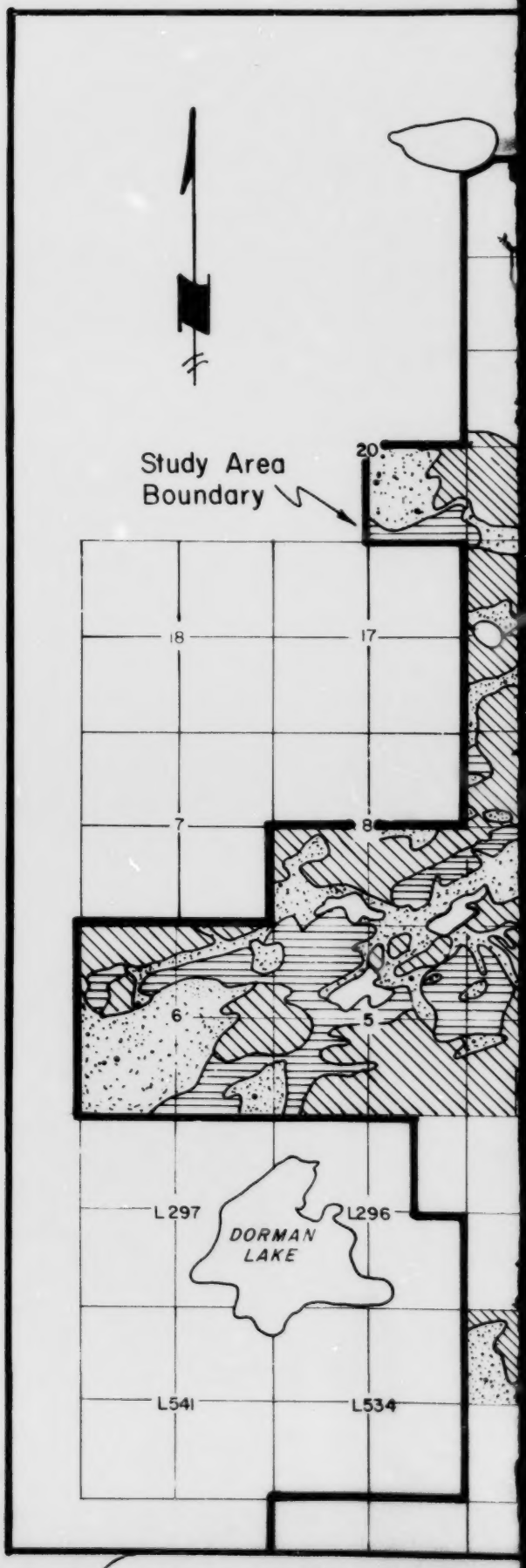
The Nechako Valley presently supports an active agricultural industry. The extent and character of this industry reflects regional soil and climatic conditions.

Soil conditions are best described with respect to their capability to support agricultural production. The Ministry of Lands, Parks and Housing has conducted an indepth soils inventory for every parcel of vacant Crown land in the study area. Each parcel was assigned agricultural capability ratings based on the classification system developed for the CLI issues.

Soils were rated on a scale of seven classes. Class 1 - 3 soils have a high capability for agriculture, while class 4 and 5 soils have a moderate and limited capability, respectively. Class 6 and 7 soils are considered to be essentially non-productive for agricultural purposes. Generally, class 4 soils are suitable for intensive agricultural production while class 5 lands are suitable for improved pasture.

Though the soils have been classified in accordance to the CLI system, the information collected for this project is much more detailed and accurate than the CLI maps. Whereas the CLI information is based on the interpretation of air photos and is summarized onto maps at the 1:63,300 or 1:50,000 scales, all of the capability information for this project was obtained through field investigations and then mapped at the 1:20,000 scale. The CLI maps can only indicate the general capability of large tracts of land to support agricultural practices while the information collected for this study provides enough detail to delineate specific parcels of arable land.

Generally, the majority of land within the Vanderhoof Settlement Area has a moderate or limited capability for agriculture (classes 4 and 5). The remainder is mostly non-productive (classes 6 and 7) with very small and infrequent parcels of high capability lands. Map 4 provides an indication of the level of detail


Study Area
Boundary
20
18
17
7
8
6
5
L297
DORMAN
LAKE
L296
L541
L534

MAP 4

AGRICULTURAL CAPABILITY STUDY

Lily Lake/Holy Cross Road Area

Land capable of supporting Annual Cultivation
Class 4 Agricultural land

Land capable of supporting Periodic Cultivation

Combination of Class 4 & 5 Agricultural land

Land not capable of supporting Agricultural Development

Combination of Class 5,6 & 7 Agricultural land

Province of British Columbia
Ministry of Lands, Parks and Housing

Study Area Boundary

T.P. 11

T.P. 9

MILLIGAN LAKE

LILY LAKE

DORMAN LAKE

NECHAKO RIVER

L297 L296 L295 L294 L293 L290 L541 L534 L533 L532

SCALE IN KILOMETERS

undertaken in the soils analysis. The soils capability information compiled for the Lily Lake area at the 1:20,000 scale is summarized here at 1:50,000. The soils capability information for the remainder of the study area is not shown in this report because of the exorbitant mapping requirements, however, it is available for viewing in the Regional Lands office (see Appendix A for a comparison of forest capability values).

The soils capability information is summarized on Map 5. Some of the main criteria used to assess the soils capability include:

- the primary soil classifications and combinations thereof;
- the type and combinations of soil restrictions;
- current farming technologies and practices; and
- climatic conditions (number of frost-free days and number of heat units).

2.1.5 Wildlife and Fisheries Resources

The Vanderhoof Area is a very important habitat for ungulate (hoofed) species, including moose, mule deer and a small number of white-tailed deer and elk. Moose and mule deer can be found throughout the area utilizing different habitats at various times of the year (Map 6). The most important habitats include river valleys and lakeshore environments. During the winter months, both species tend to concentrate in these areas, particularly when in association with west and south-facing slopes, areas of low snow accumulation. Upland areas in the vicinity of Fraser Lake and Cluculz Lake also serve as important migration corridors.

The area also supports a number of predator species including black bear, grizzly bear, coyote, fox, wolf, lynx and the occassional cougar. Several of these are considered to be important furbearers, along with beaver, muskrat, marten, skunk, mink, ermine, squirrel and fisher, all of which are well established residents.

Vanderhoof Area Crown Land Plan

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Lands and Housing Regional Operations
1984

PLAN AREA

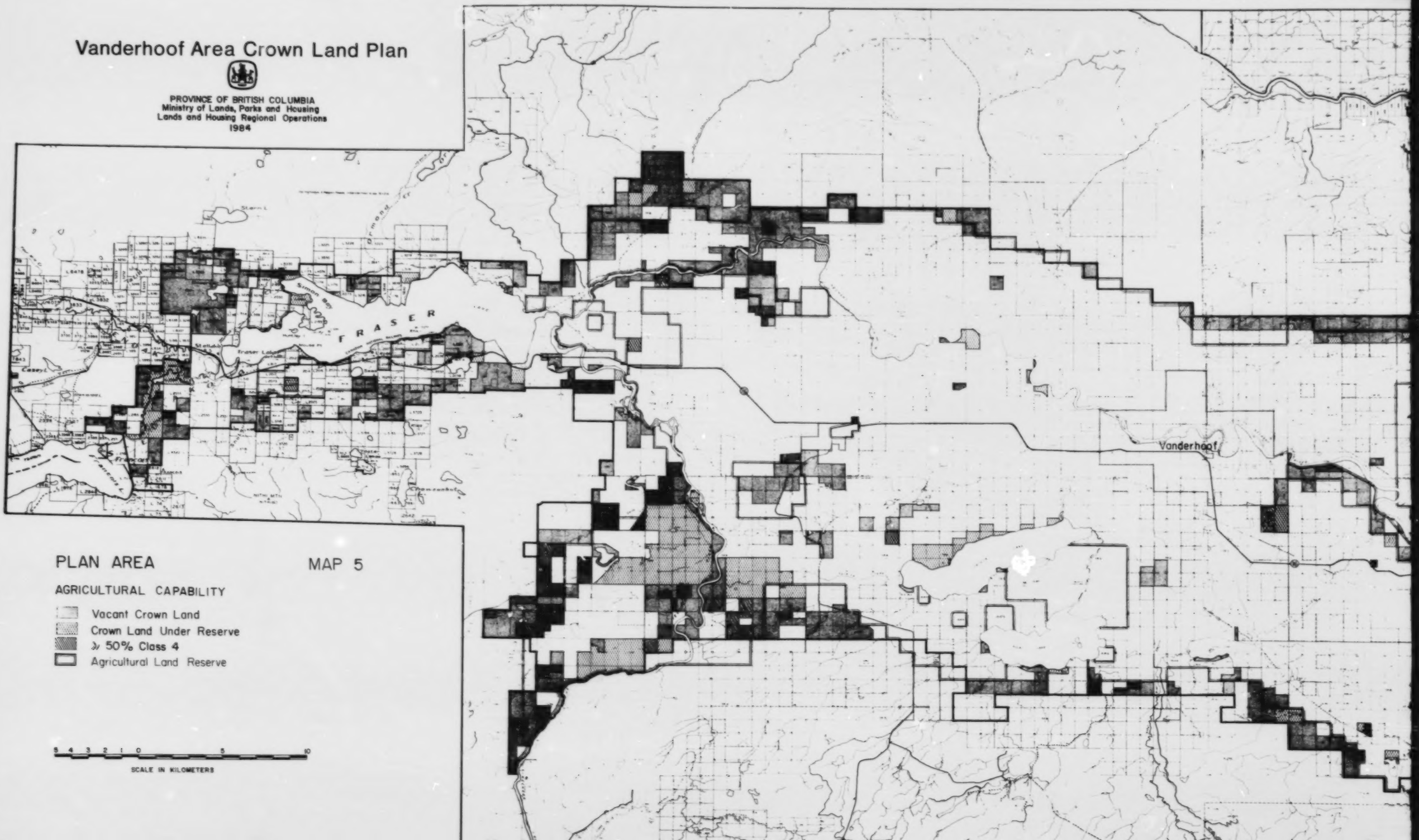
MAP 5

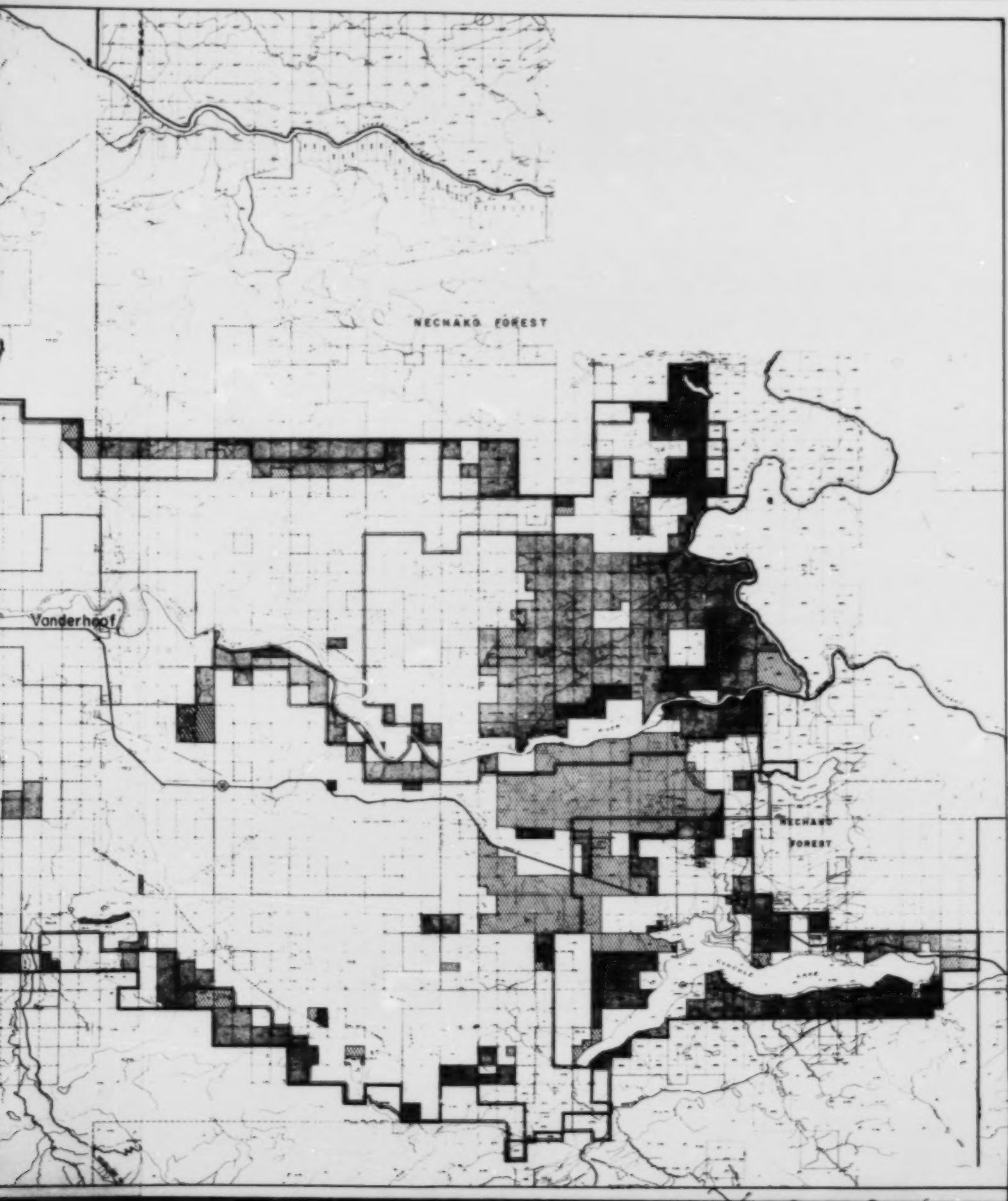
AGRICULTURAL CAPABILITY

- Vacant Crown Land
- Crown Land Under Reserve
- ≥ 50% Class 4
- Agricultural Land Reserve

5 4 3 2 1 0 5 10

SCALE IN KILOMETERS




NECHAKO FOREST
Vanderhoof
NECHAKO
FOREST

Vanderhoof Area Crown Land Plan

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PLAN AREA

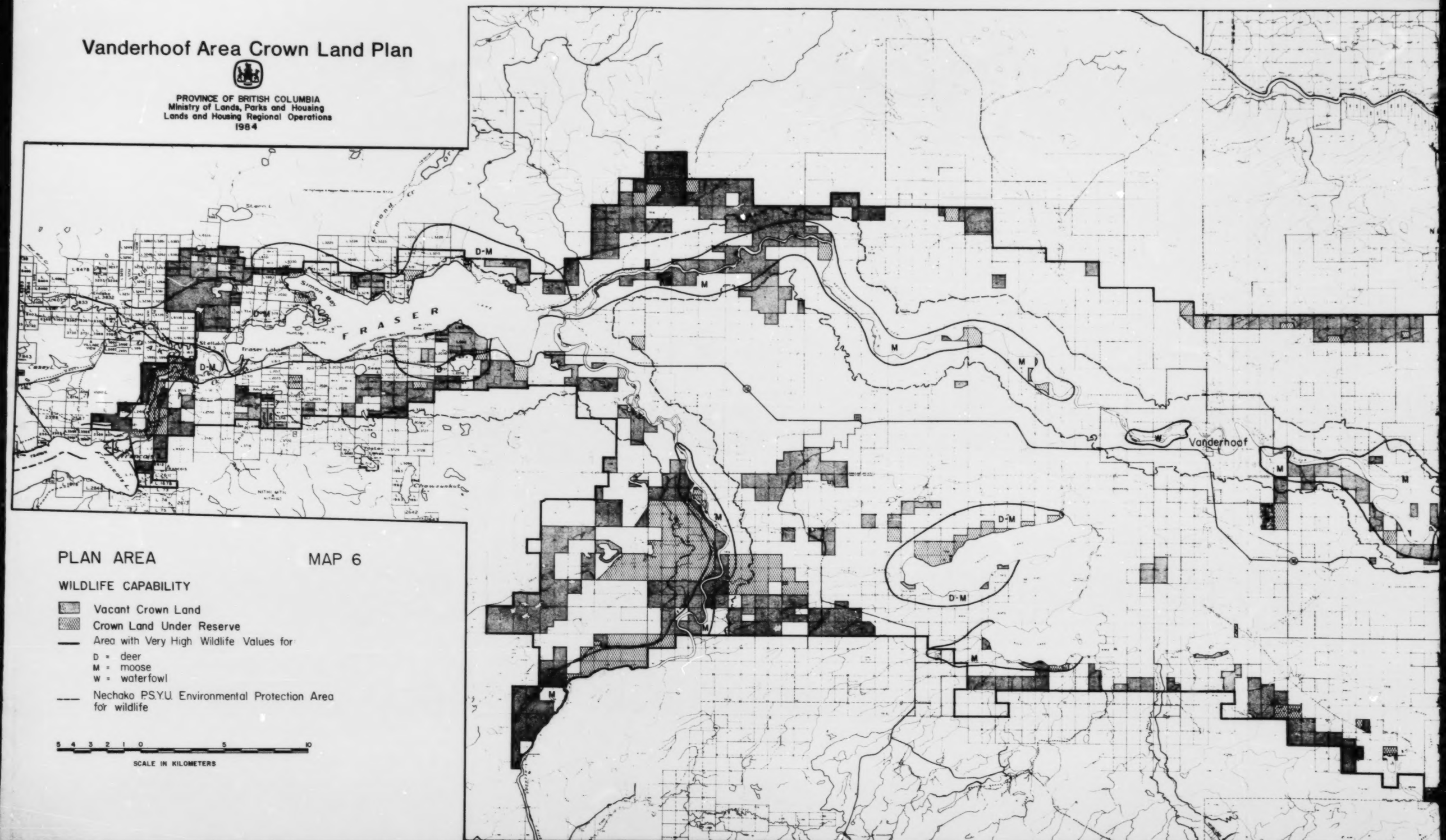
MAP 6

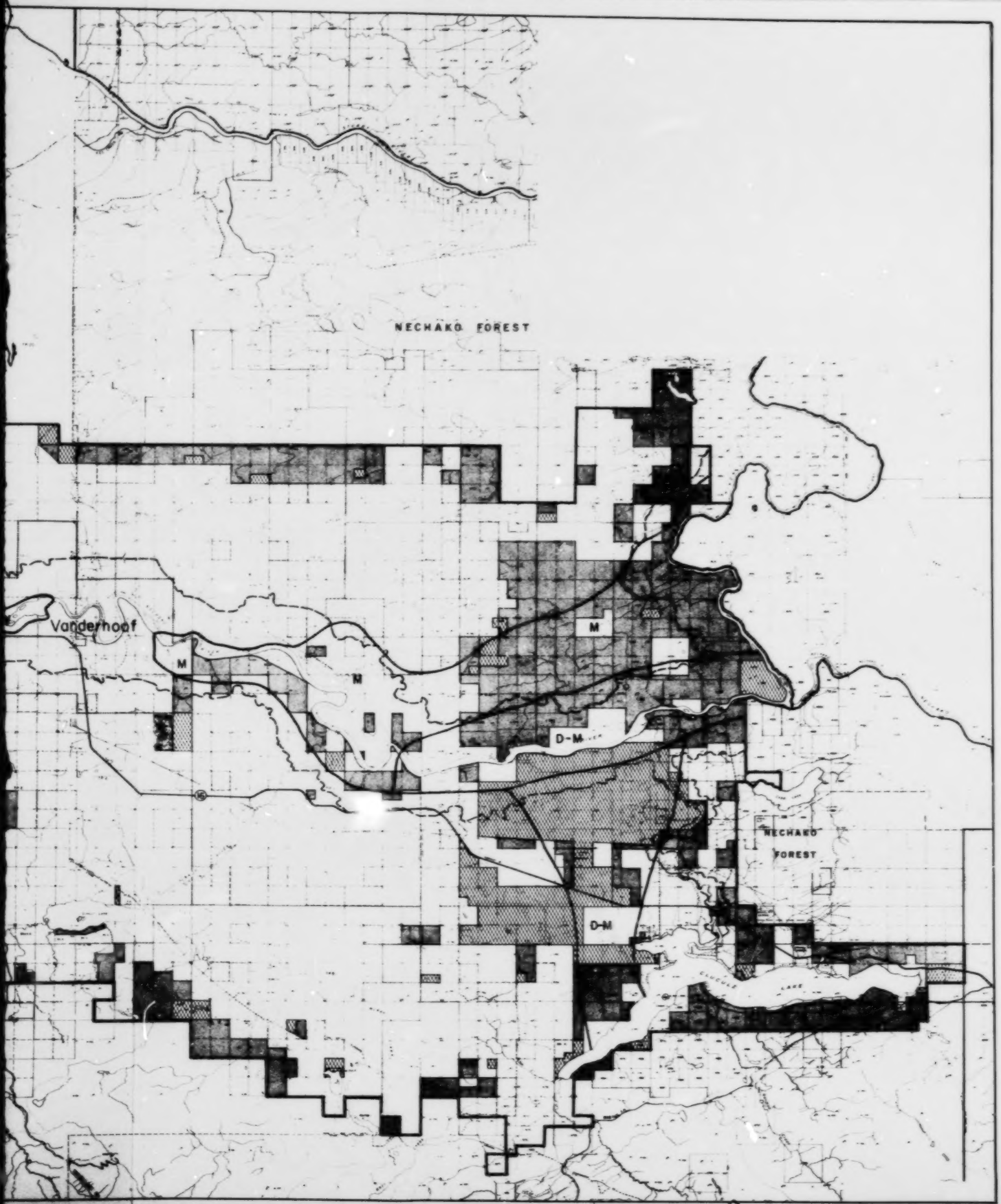
WILDLIFE CAPABILITY

- Vacant Crown Land
- Crown Land Under Reserve
- Area with Very High Wildlife Values for
  - D = deer
  - M = moose
  - W = waterfowl
- Nechako P.S.Y.U. Environmental Protection Area for wildlife

5 4 3 2 1 0 5 10

SCALE IN KILOMETERS




NECHAKO FOREST
Vanderhoof
M
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D-M
D-M
NECHAKO
FOREST

A wide range of bird species are also present, particularly during the spring and fall migrations. During these periods, many thousands of birds make use of area lakes, rivers and uplands. They include numerous species of warblers and other field birds, a wide range of shorebirds, and as many as twenty species of ducks and geese, most numerous of which are the mallard, pintail, teal and the Canada goose. Two species of swans can also be viewed. The most notable of the two is the trumpeter swan, a winter resident of the Nautley and Stellako River areas. The waterfowl appear to be more numerous during the spring migration because they are restricted by ice and snow to specific portions of the River. Many of these species remain in the area over the summer to nest.

Various birds of prey species (raptors) can also be seen within the study area, either during migration, during the summer nesting season or on a year round basis. Among these are the bald eagle, osprey and various types of owls.

Popular upland game birds include four species of grouse.

The rivers, streams and lakes of the study area have high fisheries resource values. Firstly, they support a variety of recreational fishing. Trout fishing is the most popular, however, Dolly Varden char and burbot are also very popular. Secondly, the rivers and streams have a high value as a spawning habitat for trout and salmon. The Stellako River and other small streams which run into Fraser Lake are the spawning grounds for sockeye salmon. The chinook salmon, on the other hand, spawn primarily in the Nechako River although the Nautley and Stellako Rivers are used as well.

Sturgeon, a bottom feeding fish that can reach three metres and 350 kilograms, is another important fish resource of the Nechako River. Since this species can live for 60 to 100 years and longer, the management implications become more complex.

2.1.6 Outdoor Recreational Resources

Recreational resources of the plan area are generally confined to water bodies and river courses due to the lack of significant upland areas (Map 7). The CLI ratings indicate that prime and moderate recreational resources are associated with Fraser Lake, Cluculz Lake, the Stuart, Stellako and Endako Rivers and a major section of the Nechako River. Recreational opportunities of less importance are found along the remainder of the Nechako River and in various upland areas. In the vicinity of Vanderhoof, areas of extensive recreational opportunities, though in isolation are of limited value, become increasingly important in view of the lack of public recreational facilities or of public lands in general.

The highest recreational values are associated with Cluculz Lake and Fraser Lake. The attractive shorelines and good water quality of these lakes provide opportunities for a wide range of water based activities including swimming, boating, water-skiing and fishing. As a result, they both have experienced substantial lakeshore cottage development and are subject to heavy use by the public.

Beaumont Provincial Park, a 49 unit campground with a beach, day use area and boat launch, and Petersons Beach Forest Service Recreation Site are the primary recreational developments of Fraser Lake. In addition, a number of small, non-developed Crown recreation sites ring the lake. Since the majority of the lakeshore is currently devoted to recreational use, either private or public, and the amount of vacant Crown land along the lakeshore is very minimal, the potential for further Crown development is very limited.

Over sixty percent of the shoreline of Cluculz Lake is presently subdivided for cottage development. The lake, however, does not have any major public recreational developments. The few Crown recreational sites around Cluculz Lake are small and either non-developed or designated for

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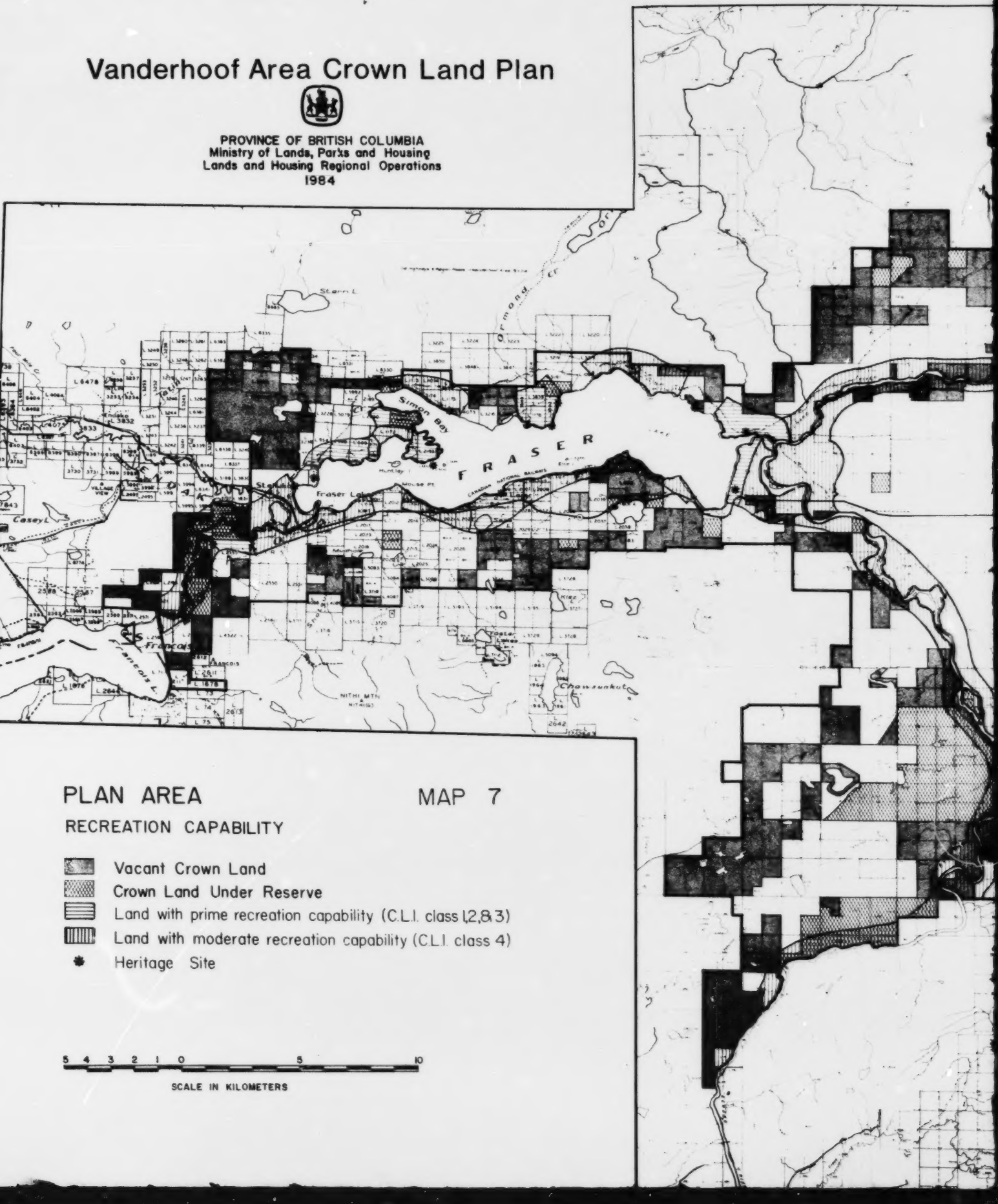

PLAN AREA

MAP 7

RECREATION CAPABILITY

- Vacant Crown Land
- Crown Land Under Reserve
- Land with prime recreation capability (C.L.I. class 1,2,& 3)
- Land with moderate recreation capability (C.L.I. class 4)
- Heritage Site

5 4 3 2 1 0 5 10

SCALE IN KILOMETERS

NECHAKO FOREST

Vanderhoof

NECHAKO FOREST

NECHAKO LAKE

the use of a specific organization. Furthermore, the most suitable shoreline segments for development have already been alienated. Thus, while the need for primary public lakeshore development along Cluculz Lake is high, the characteristics of the Crown land may support only secondary regional facilities.

The Nechako River transects the plan area and provides opportunities for boating, canoeing, fishing and wildlife viewing. At present, this river receives moderate levels of use by local fisherman and canoeists. Major access points are from Highway 16 at Fort Fraser, at Vanderhoof and at the new Highway 27 bridge west of Vanderhoof; numerous secondary access points are found along the length of the river. The Stellako River provides excellent angling opportunities. Other important waterways include the Stuart River and the Sinkut River.

A 130 kilometre stretch of the Highway 16 tourist corridor traverses the area. Along this section are a number of highway rest areas in addition to tourist orientated facilities in Vanderhoof and on Fraser Lake.

Aside from the recreation facilities at Forest Service sites and Beaumont Provincial Park, community parks are found in Vanderhoof, Fort Fraser, the Village of Fraser Lake and on Hogsback Lake. Commercial recreational developments are found on Fraser Lake, Tachick Lake, Nulki Lake, the Stellako River and Cluculz Lake. Several Land Act recreation reserves are scattered throughout the area.

2.1.7 Heritage Resources

The Heritage Conservation Act states that a "heritage site" means, whether designated or not, land, including land covered by water, of historic, architectural, archeological, palaeontological or scenic significance to the Province or a municipality, as the case may be.

The Heritage Conservation Branch of the Provincial Secretary and Government Services has eleven heritage sites on record which are described in Table 2 and are shown on Map 7. It is emphasized that this list is probably not an accurate reflection of the actual number of sites within the study area. There are likely to be sites which have not been investigated or which have not yet been found.

2.2 People, Economy and Land Use

2.2.1 Settlement, Land Use and Development History

The Central Interior of British Columbia was first settled by Europeans and their descendants around 1800. Thriving native settlements were already well-established at either end of Fraser Lake when Fort Fraser, the third outpost in the province, was erected in 1806. Soon after, in 1811, the first farm in the province was established nearby.

The fur trade supported this sparse population until the latter half of the 1800's when gold rushes in the Cariboo, the Manson Creek area and the Klondike brought more people and economic activity to the region. It was not until the early 1900's, however, with the completion of the railroad through the Nechako and Bulkley River Valleys, that a real sense of stability pervaded the area.

The plan area communities of Vanderhoof and Fraser Lake were both settled in the early years of the 1900's. Vanderhoof was first settled as an agricultural community but logging soon became a major factor in the area economy. While the railroad and telegraph lines provided the base for the village, they did not create a development boom. Instead, the village has grown steadily over the years through the expansion of both the agricultural and forestry resource sectors. In more recent years, the growing importance of the community as a commercial centre and a government services centre for the surrounding area as well as a link on the Highways 16 and 27 tourist corridors have helped to broaden its employment base and maintain its stability.

TABLE 2
HERITAGE SITES

NO.	LEGAL DESCRIPTION	LOCATION	SITE NAME AND NUMBER	TYPE	SITE FEATURES	REMARKS
1	DL 826, Cariboo District	confluence of Stuart and Nechako Rivers	Chinlac Village Ga Rv-1	Carrier Indians - earth Lodge Village	row of house remains in 6 ha. clearing - 2 or 3 small pits - scrappers	site was occupied by Carrier Indians until 1745 - massacred by Chilcoten Indians
2	Sec. 10, Twp 8, Range 4, Coast District	Northern shore of Hogsback Lake	Unknown Fi Rw-1	Carrier Indians - campsite - fishing station?	chipped basalt point tip-scrappers	site disturbed by log-operations - presently within provincial park reserve
3	Sec. 28, Twp 6, Range 4, Coast District	Southern shore of Nulki Lake	Unknown Fl Sa-9	Upper Carrier Indians-general activity	two circular cultural depressions	site could be disturbed by the opening of a gravel pit and construction of a road
4	Sec. 28, Twp 6, Range 4, Coast District	Southern shore of Nulki Lake	Unknown Fl Sa-10	Upper Carrier Indians-general activity	two circular cultural depressions	site could be disturbed by the opening of a gravel pit and construction of a road
5	Sec. 28 & 33, Twp 6, Range 4, Coast District	Southern shore of Nulki Lake	Unknown Fl Sa-5	Carrier Indians - general activity		
6	DL 3710, Coast District	West bank of Stellako River	Unknown Ga Sf-10	Historic cabin	one cabin of saddle-notch construction - heavily overgrown	site is located on centre line of proposed B.C. Hydro line

(Continued...)

TABLE 2
HERITAGE SITES (Continued)

NO.	LEGAL DESCRIPTION	LOCATION	SITE NAME AND NUMBER	TYPE	SITE FEATURES	REMARKS
7	DL 2557, Coast District	500 m. east of Stellako River	Unknown Ga Sf-9	Carrier Indians isolated find	one obsidian flake	
8	DL 2183, Coast District	North bank of Stellako River	Unknown Ga Sf-7	Upper Carrier Indians-general activity	three cultural depressions - lithic scatter	within boundaries of wildlife habitat reserve - will probably remain undisturbed
9	DL 2554, Coast District	South bank of Stellako River	Stellako Pit Ga Sf-5	Upper Carrier Indians-general activity	lithic scatter cul-cultural depressions-cache pits-possible house pit-resource utilization-fish processing	75% intact - considerable evidence of pot hunting - within wildlife reserve
10	DL 3191, Coast District	North side of Fraser Lake	Unknown Ga Sd-1	Upper Carrier Indians - pictograph	paintings on granite cliff wall in reddish brown pigment	three separate figures - the largest contains five major elements.
11	DL 1175A, Coast District	North side of Fraser Lake	Unknown Ga Se-4	Carrier Indians general activity	end scrapper - spoke shave- three used flakes - chipping detritus - chipped knife frag.	

Source: B.C. Provincial Secretary and Government Services.

Fraser Lake was first settled around 1905 although it was 1914, with the completion of the railroad, before a small village took shape. From the mid 1920's until 1964, the area sawmill with the associated logging activities was the chief employer. In addition, a few ranches and a dairy farm were located in the general vicinity. In 1964, Placer Developments commenced construction on the Endako mine which has since been the largest employer in the area.

Agricultural Settlement:

The agricultural industry in the Vanderhoof area, though well-established since the late 1940's, has experienced a substantial amount of growth since the late 1960's. It is estimated that in 1948, roughly 6.8 percent, or 12,000 hectares, of the study area consisted of improved agricultural land. Fifty percent of this area consisted of wild meadows, lands which were easily brought into use for pasture. By 1971, the amount of improved land had only increased to approximately 17,480 hectares (Table 3). By 1981, however, this figure had increased to 44,205 hectares, or over 150 percent in ten years.

Transportation:

Highway 16, the CNR railroad line and regional airports at Vanderhoof and Fraser Lake are the primary transportation links in the study area. The highway and the railroad form a transportation corridor stretching from Prince George to Prince Rupert. The only secondary route is Highway 27 connecting Vanderhoof and Fort St. James. In addition to these highways, the plan area is criss-crossed by a good system of rural roads and logging roads providing reasonably close access to most of the vacant Crown land.

Official Settlement Plans:

The Regional District of Bulkley-Nechako is one of the primary agencies responsible for the regulation of settlement orientated development. The Official Settlement Plan (OSP) is the

TABLE 3
AGRICULTURAL LAND, IMPROVED AND UNIMPROVED
VANDERHOOF CENSUS AREA
(SUBDIVISION A)

Area	1971 (Hectares)			1981 (Hectares)		
	Total	Improved[1]	Unimproved	Total	Improved[1]	Unimproved
Vanderhoof Census Area	68,387	18,596	49,790	82,554	47,028	35,526
Vanderhoof Plan Area (Estimated)[2]	64,285	17,480	46,805	77,600	44,205	33,395

1 Improved area is that land under intensive cultivation, improved pasture, summerfallow, newly broken land and other improved land (e.g. barnyards, home gardens).

2 The statistics for the Vanderhoof Census Area were factored downwards to reflect the smaller Vanderhoof Plan Area.

Source: Statistics Canada, 1971, 1981.

chief mechanism used by the Regional District in stating land development objectives and is the basis for the preparation and adoption of land use regulating by-laws and amendments. Most of the plan area is covered by either the Endako - Fraser Lake - Fort Fraser or the Vanderhoof Rural OSP as shown on Map 8.

2.2.2 Land Status and Reserves

The total plan area measures approximately 177,600 hectares (see Map 9 and Tables 4 and 5). Approximately 71 percent of this area is excluded from the study. Excluded lands consist of private lands, Crown land under lease or commitment to lease, Indian Reserves and Order-in-Council reserves.

The chief focus of this plan, vacant Crown land, comprises 22 percent of the land base. Crown land reserves make up an additional 7 percent. The majority of vacant Crown land is located along the periphery of the study area. The largest blocks include the Chilco area northeast of Vanderhoof and the Lily Lake area south of Fort Fraser. Almost all of the best arable land within the study area has already been alienated and is now either private land or Crown land held under lease.

Community pastures and grazing reserves are by far the dominant type of Crown land reserve comprising 65 percent of the total.The largest grazing areas are the Kori and Wren Community Pastures and the Lily Lake, Tachick Creek grazing reserves. The six other types of Crown land reserves account for only 2.4 percent of the total land area. These other reserves are for the following land uses in decreasing order of total land area:

- Aggregates
- Wildlife
- Recreation
- Agriculture
- Forestry
- Housing.

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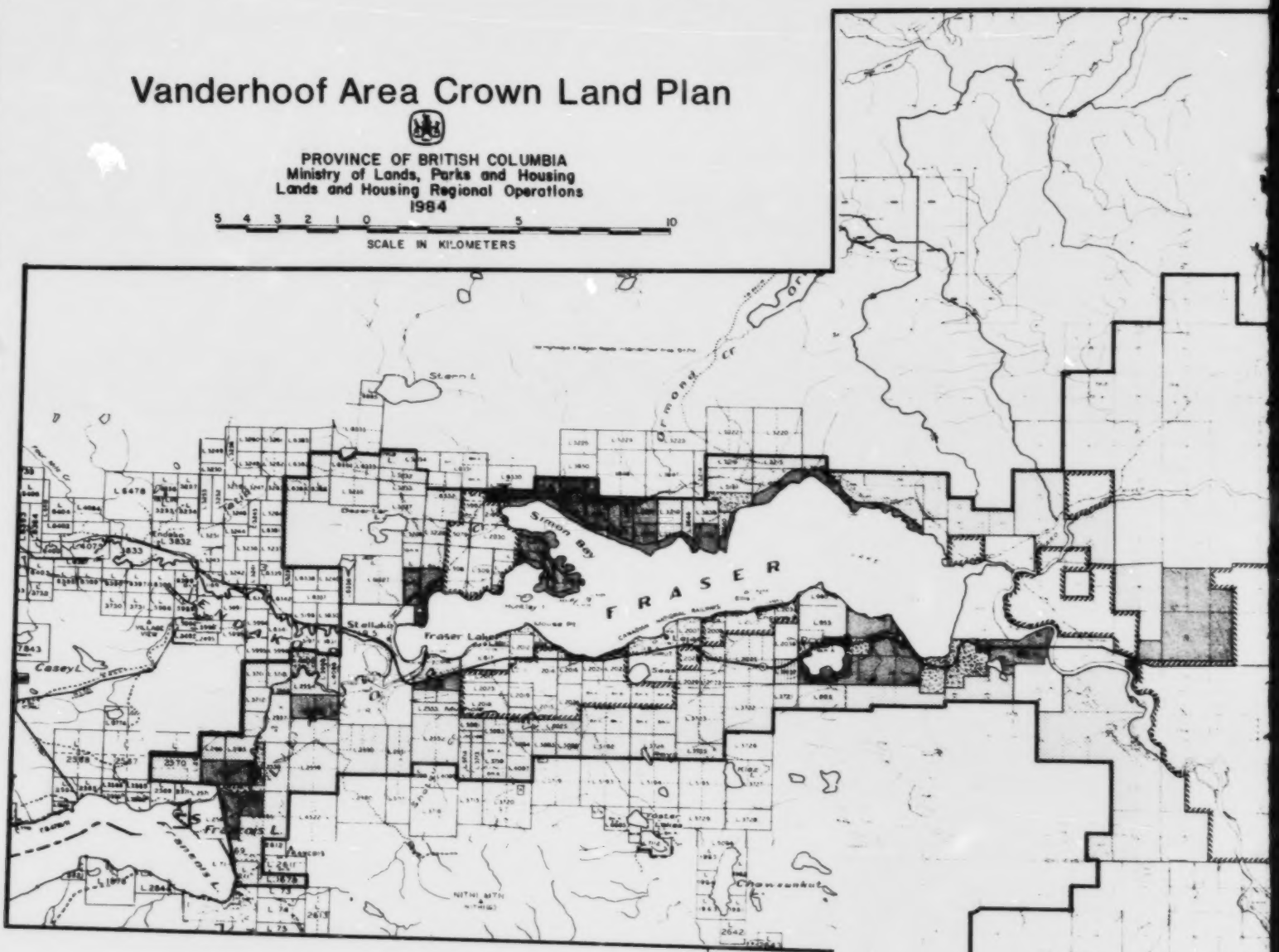
SCALE IN KILOMETERS



REGIONAL DISTRICT
Settlement Plan Designations

MAP 8

- Residential
- Rural- Residential
- Rural- Resource
- Mobile Home Park
- Lakeshore
- Commercial
- Industrial
- Recreational
- Agricultural Land Reserve
  Rural Agricultural
- Rural Agricultural
  (area outside the A.L.R.)
- Area outside Regional District Settlement Plan Boundaries and excluded land

NECHAKO FOREST

Vanderhoof

NECHAKO FOREST

8

Vanderhoof Area Crown Land Plan

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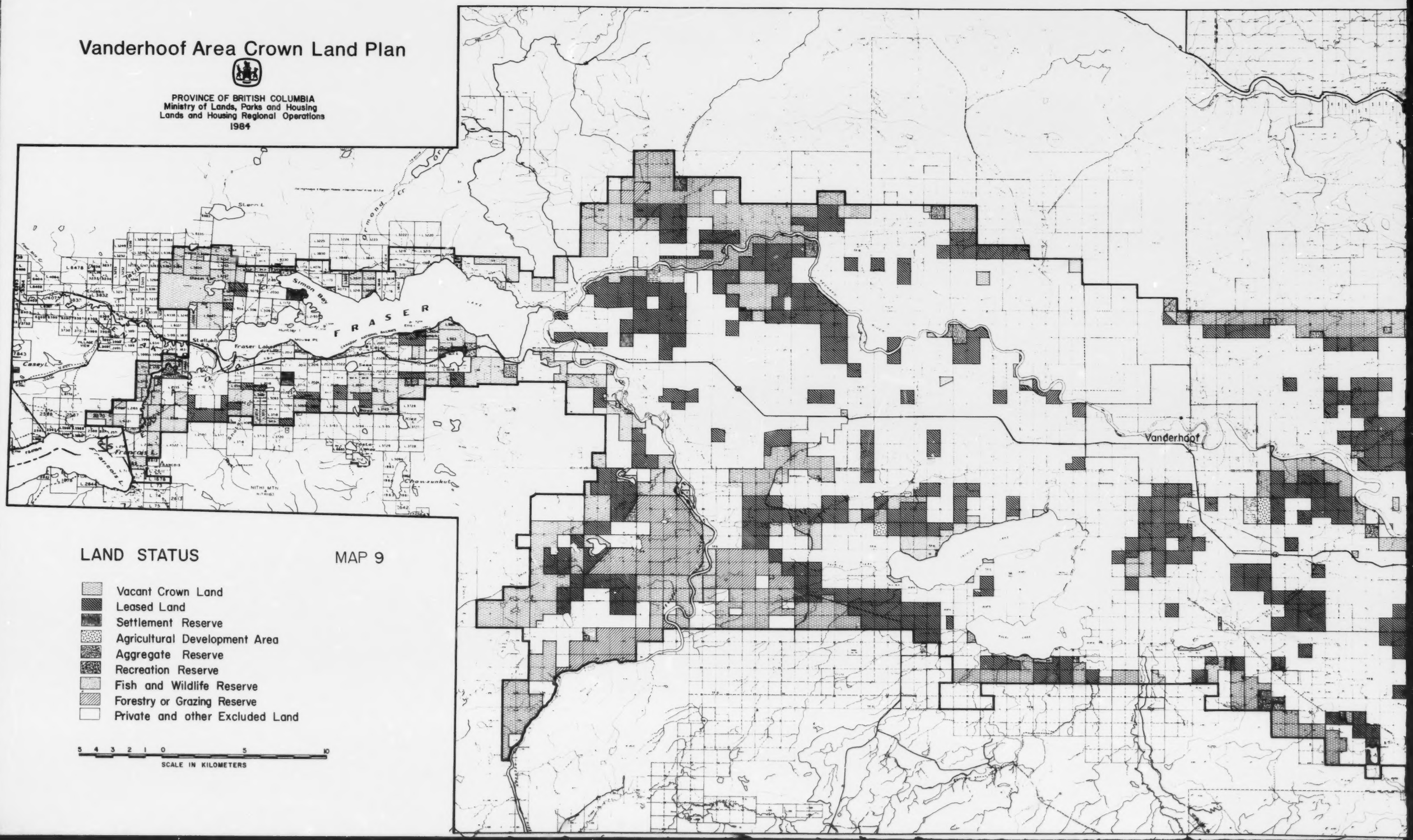


LAND STATUS

MAP 9

- Vacant Crown Land
- Leased Land
- Settlement Reserve
- Agricultural Development Area
- Aggregate Reserve
- Recreation Reserve
- Fish and Wildlife Reserve
- Forestry or Grazing Reserve
- Private and other Excluded Land

5 4 3 2 1 0 5 10
SCALE IN KILOMETERS

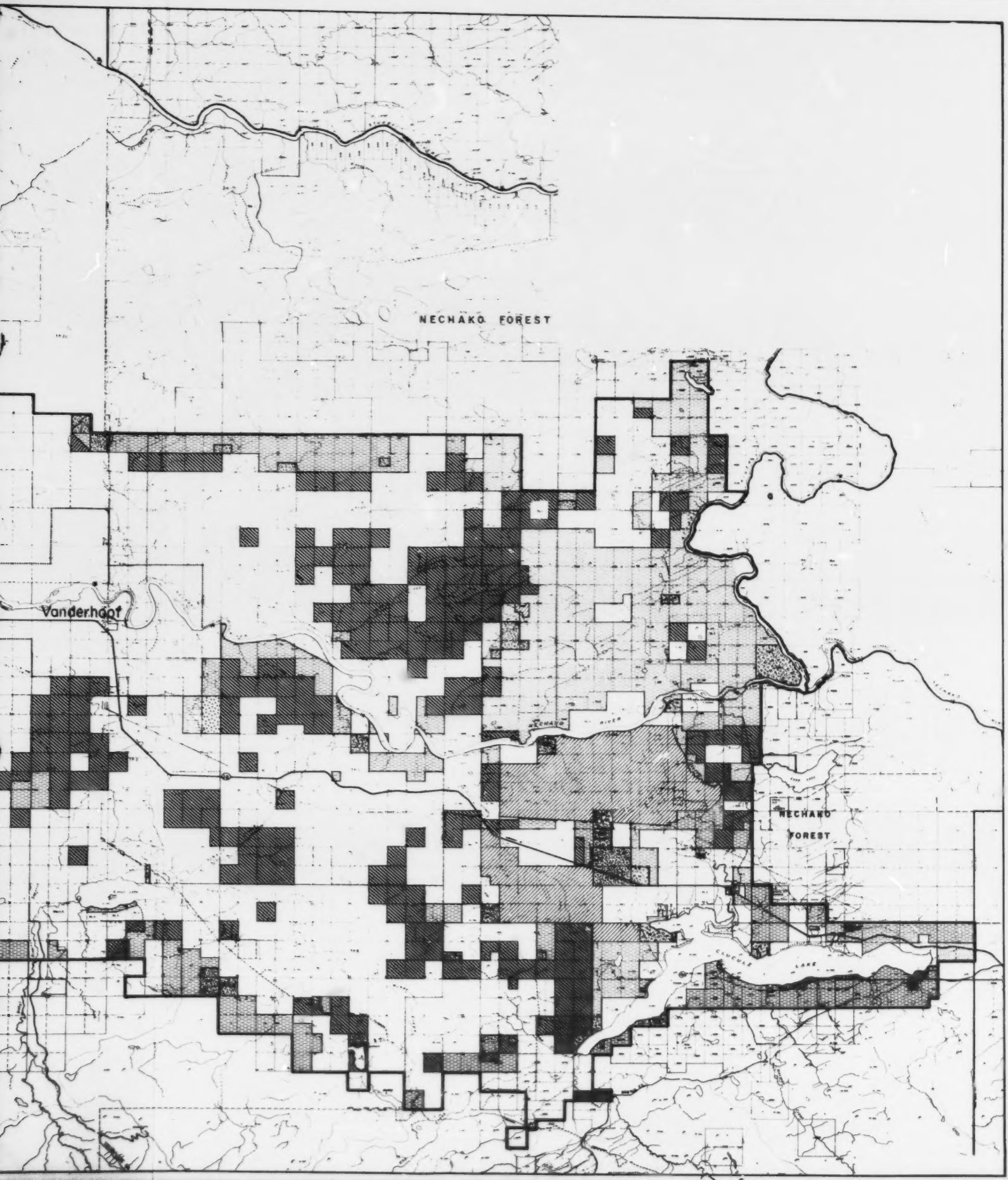

NECHAKO FOREST
Vanderhoof
NECHAKO
RIVER
NECHAKO
FOREST
CHUCHUA
LAKE

TABLE 4 LAND STATUS AND AREA VANDERHOOF AREA CROWN LAND PLAN		
Land Status	Area (Ha.)	% of Total Plan Area
Vacant Crown Land	39,646	22.3
Crown Land Under Reserve	12,061	6.8
Crown Land Under Lease	25,229	14.2
Letter of Commitment to Lease	4,144	2.3
Private Land (Excluded)	91,993	51.8
Other Excluded Land (Indian Reserve, Ecological Reserve and Park)	4,533	2.6
TOTAL	177,600	100.0

TABLE 5 CROWN LAND RESERVES VANDERHOOF AREA CROWN LAND PLAN		
Crown Land Reserve	Area (Ha.)	% of Total Reserve Area
Housing	130	1.1
Agriculture	259	2.1
Aggregates	1,664	13.8
Recreation	929	7.7
Wildlife	1,101	9.1
Forestry	155	1.3
Grazing	7,823	64.9
TOTAL	12,061	100.0

Source: B.C. Ministry of Lands, Parks and Housing, 1983

The Agricultural Land Reserve, established under the Agricultural Land Commission Act, covers 116,000 hectares (65 percent) of the plan area and applies to all categories of land status except for federal lands. The ALR is administered by the B.C. Agricultural Land Commission and is zoned accordingly by the Regional District.

2.2.3 Population Base and Distribution

The population of the Central Interior was very small until after World War I when the demand for forest products spurred a tremendous period of growth. Within the plan area, Vanderhoof was the chief benefactor of this new growth. Fraser Lake remained quite small until 1964 when the Endako mine development boosted the Village's population from 150 to 1,050 in two years. Fort Fraser, though the oldest community, is now the smallest of the three. Although the small sawmill operation closed down, the employment opportunities shifted to the new mill at Lejac, located between Fraser Lake and Fort Fraser. The current population of about 500 is supported through employment at this mill as well as the Plateau Lumber Sawmill at Engen and as a highway and lower-tier commercial centre. The demand for agricultural products has also experienced a consistant increase since World War II resulting in a steady expansion in the rural population surrounding Vanderhoof and Fort Fraser.

More detailed population statistics are provided in Table 6.

2.2.4 Economic and Employment Overview

The characteristics of the local economy are important factors to be considered in any land use planning study. For this exercise, economic factors have been indirectly considered in evaluating the land needs of the competing settlement/resource land uses. The task force, in setting out specific land use recommendations, has kept in mind current as well as future economic conditions. An economic analysis was not used in assessing land requirements because no acceptable methodology exists which adequately compares the costs and benefits of various land use scenarios in terms of economic, social and environmental criteria.

TABLE 6 POPULATION GROWTH - CENSUS YEARS VANDERHOOF AREA				
Areas	1966	1971	1976	1981
Vanderhoof	1,558	1,653	1,990	2,323
Rural Vanderhoof Area	2,300	3,004	4,088	4,642
Fraser Lake	1,093	1,292	1,430	1,543
Rural Fraser Lake Area	460	725	1,054	1,213
TOTAL	5,411	6,674	8,562	9,721

Source: Statistics Canada

Employment Trends:

Census statistics (1981) for three common indicators of employment activity, labour force statistics, participation rates and unemployment rates, are provided in Tables 7, 8 and 9 for the Vanderhoof area and the province. As expected, males comprised a higher percentage of the total labour force in the Vanderhoof area than in the province as a whole. Similarly, the male participation rate was slightly greater. The unemployment rate, however, was greater for both males and females.

A lot of activity has, of course, taken place in the economy since 1981. To get an impression of the general trends in the Central Interior, quarterly unemployment figures are listed in Table 10 for Federal Region 97, Central Interior, which extends from Burns Lake to Valemount. The unemployment rates for the Vanderhoof area were most likely not as high as those indicated below for 1982 and 1983 since Vanderhoof weathered the recession better than most northern communities.

TABLE 7
LABOUR FORCE, 1981
VANDERHOOF CENSUS AREA (SUBDIVISION A)*

Area	Total		Male		Female	
	No.	Percent	No.	Percent	No.	Percent
Vanderhoof Area	3,440	100	2,200	64	1,240	36
British Columbia	1,389,215	100	822,645	59	566,570	41

TABLE 8
PARTICIPATION RATES, 1981
VANDERHOOF CENSUS AREA (SUBDIVISION A)*

Area	Total (Percent)	Male (Percent)	Female (Percent)
Vanderhoof Area	67.8	80.9	52.7
British Columbia	65.3	78.3	52.7

TABLE 9
UNEMPLOYMENT RATES, 1981
VANDERHOOF CENSUS AREA (SUBDIVISION A)*

Area	Total		Male		Female	
	No	Percent	No.	Percent	No.	Percent
Vanderhoof Area	335	9.7	235	10.7	100	8.1
British Columbia	86,650	6.5	42,745	5.6	43,905	7.7

* The Vanderhoof Census Area (Subdivision A) includes all of the Vanderhoof Area plus the communities of Endako and Fort St. James.

Source: Statistics Canada

TABLE 10
UNEMPLOYMENT RATE (%), 10/80 - 10/83
REGION 97 (CENTRAL INTERIOR)

1980	October	-	6.6	1982	January	-	14.6
					April	-	20.3
					July	-	19.8
					October	-	18.9
1981	January	-	8.1	1983	January	-	18.5
	April	-	8.8		April	-	17.0
	July	-	5.8		July	-	15.2
	October	-	9.1		October	-	15.9

Source: Employment and Immigration Canada

Fluctuations in the unemployment rate give rise to changes in other indicators including labour force statistics and participation rates. Generally, as employment conditions worsen, the magnitude of both of these indicators also decreases but not as much nor as quickly.

Employment Sectors:

Basic employment in the study area is derived primarily from the forestry, mining and agricultural resource/industrial sectors.

(a) Forestry

Four major forestry operations are located within the plan area. Employment and production statistics are outlined for each mill in Table 11.

The employment directly generated by these four mills alone provides jobs for about one quarter of the plan area labour force. When contractors, associated industries and support services as well as private timber sales are also considered, the overwhelming economic importance of the forest industry to the plan area becomes clearly evident.

TABLE 11
MAJOR FORESTRY OPERATIONS
VANDERHOOF AREA

Operation / Community Served	Employment in Mill (1984)	Employment in Woods (Estimate)	1982 Annual* Mill Production	Annual Allowable Cut	Mill Capacity (Mm^3/yr.)	Private Sources of Wood (% of Mill needs)
Eurocan Pulp and Paper Co. Ltd. Fraser Lake Sawmill Division Fraser Lake - Fort Fraser	350	100	205 million Fbm	274,640 m^3	600 - 700	8
Plateau Lumber Vanderhoof	240	145	178 million Fbm	686,120 m^3	750 - 800	10
Bond Brothers Vanderhoof	110	75	48 million Fbm	67,000 m^3	250	100
L & M Lumber Vanderhoof	85	20	55 million Fbm	50,490 m^3	300	99
TOTAL	785	340	486 million Fbm	961,250 m^3	1,900 - 2,050	

Source: Telephone survey of individual companies; Ministry of Forests.

* The annual mill production varies according to market and labour situations from year to year and is based on the general economy.

(b) Mining

Only one mining operation, the Placer Development Ltd. Molybdenum mine located at Endako, has provided significant employment for the plan area population. The mine was opened in 1965 with a 10,000 tons per day capacity, however, this was subsequently increased to 30,000 tons per day.

At full capacity, the mine employs about 600 persons. Due to the depressed world markets, however, the mining and milling operations have been shut down in 1983 with no prospect of re-opening in the short term. The only activity in the complex has been in the custom roasting and moly lube plants which together employ approximately 60 persons. While the short-term prospects are not encouraging, long-range prospects are more favourable, especially in view of the fact that the mine has a twenty year estimated life under full employment.

(c) Agriculture

The agricultural industry is a significant factor in the area economy. In 1981, about 415 persons were employed in agriculture in the Vanderhoof Census Area compared to only 255 in 1971. This represents a 73 percent increase over ten years. Furthermore, the number of farms increased from 286 to 441, or 54 percent, while the area in farms (including agricultural leases) increased only 21 percent, from 68,387 hectares to 82,554 hectares.

The growth of farm capital also illustrates the importance of the agricultural industry. As shown in Table 12, the value of farm capital increased from 19.2 to 127.2 million dollars between 1971 and 1981. Since this increase exceeds inflation, it confirms a high rate of investment for agriculture in the Vanderhoof area.

TABLE 12
FARM CAPITAL, MILLIONS OF DOLLARS
VANDERHOOF CENSUS AREA (SUBDIVISION A)

Farm Capital	1971	1976	1981
Buildings and land	14.1	38.4	94.9
Machine and Equipment	2.7	7.0	16.6
Livestock and Poultry	2.4	4.9	15.7
TOTAL	19.2	50.3	127.2

Source: Statistics Canada, 1971 and 1981

2.2.5 Population Growth and Future Economic Prospects

Future economic conditions and prospects for growth are very difficult to predict. This is particularly true for small, single resource communities such as those in the Central Interior. The economic health of these communities is highly dependent on fluctuations in resource markets, which are, of course, difficult trends to anticipate.

With this in mind, two general population projections have been made for the Vanderhoof Area. The first is based on an extrapolation of past trends whereas the second projection incorporates the expected population impact from the proposed Alcan Aluminum Smelter.

The general population projection for the Vanderhoof area, as estimated by the Regional District, is outlined in Table 13. This is a straight line projection based on an analysis and interpretation of past trends, general economic conditions and growth projections for the province as a whole. The percent increase for the years 1982 and 1983 is anticipated to be 2.9

TABLE 13
POPULATION PROJECTIONS
VANDERHOOF AREA

Year	Vanderhoof	Area "F"	Sub-Total	Fraser Lake	1/2 Area "D"	Sub-Total	Total
1981	2,323	4,642	6,965	1,543	1,213	2,756	9,721
1982	3,850*	3,317*	7,167	1,588	1,248	2,836	10,003
1983	3,962	3,413	7,375	1,634	1,284	2,918	10,283
1986	4,317	3,719	8,036	1,780	1,399	3,179	11,215
1991	4,980	4,291	9,271	2,065	1,613	3,678	12,949
1996	5,745	4,951	10,696	2,382	1,861	4,243	14,939
2001	6,628	5,712	12,340	2,747	2,147	4,894	17,234
POPULATION PROJECTION INCLUDING ALCAN PROPOSAL							
1991	5,021	4,292	9,313	2,065	1,613	3,678	12,991
1996	7,351	5,290	12,641	2,382	1,861	4,243	16,884
2001	8,473	6,097	14,570	2,747	2,147	4,894	19,464

* On January 1, 1983, the boundary of Vanderhoof was expanded, resulting in an apparent population shift from the rural area.

Source: Economic Profile, Regional District of Bulkley Nechako, December, 1982.

percent. The anticipated increase for the remainder of the study time frame is slightly lower at 2.8 percent annually.

The second popluation projection assumes approval of the proposed Alcan Aluminum Smelter, which is the only major industrial expansion project planned for the Vanderhoof area. The project is presently in the application stage, however, some of the more basic details of the proposal have been made public. The most favourable location for the smelter is within the Provincial Forest Reserve between Vanderhoof and Fort St. James. A map reserve was established over 5,750 hectares, or 22 sections of land, for investigative and management purposes. The actual smelter will occupy about 80-120 hectares.

Should the project proceed, it is anticipated that an average of 500 construction workers will be needed over a six year period beginning in 1984 with a peak of 1,200 workers in the heaviest stages. The permanent labour force requirement of the smelter is estimated to be about 760 employees. The multiplier effect of this increased base employment is expected to be roughly a 1:1 ratio. This means that increases in employment in related industries and supply and service sectors is also expected to be about 750 employees. Under current plans, the smelter will become operational in 1990.

Table 13 shows the changes in the area population projections that can be expected in the event the proposed Alcan smelter is approved. The final population reflects influx due to the Alcan project in addition to normal growth expectations.

The second population projection is a general estimate based on a number of assumptions:

- the vast majority of the construction work force will be filled by the local population, by people in the Prince George region who will commute to the site or by more distant labour pools, most of whom will live in work camps, therefore this segment will not be included in the population projection;

- permanent employment will total about 700 employees;

- approximately two-thirds of the permanent employment will be filled by people moving to the Vanderhoof District, one-third will be filled by locals;

- roughly 50 percent of the non-resident smelter employees will move to Vanderhoof while ten percent will move to the rural area around Vanderhoof (40 percent in the Fort St. James area);

- assuming a one to one ratio, spin-off employment should also total about 700 positions;

- since commerce and light industry will be attracted more to Vanderhoof than Fort St. James, the percentage increase assigned to Vanderhoof and rural Vanderhoof are slightly larger, 60 percent and 15 percent respectively;

- the average household size for all inmigrating employees is assumed to be three persons;

- the influx of workers to Vanderhoof in response to the Alcan project should occur between 1990 and 1995 inclusive.

With these assumptions, the population of the Vanderhoof area would increase by 5.1 percent annually instead of 2.8 percent between 1991 and 1996. This would revert to 2.8 percent for each of the following years.

In spite of the large impact the smelter will have on the District Municipality of Vanderhoof, which is excluded from the study area, it is not expected to have much direct bearing upon the land issues addressed in this study. The primary impact will be an increase in the demand for residential and commercial land and for a wide range of municipal services within Vanderhoof. With regard to the study area, the new

smelter will increase demand for rural residential lots in the area around Vanderhoof. Since there is very little Crown land suitable for residential or commercial development in the vicinity, this demand will have to be addressed almost entirely by private initiatives. Nevertheless, the Ministry will continue to play a supporting role in residential, commercial and industrial land development throughout the plan area. The establishment of Settlement Reserve Areas is a major step in these on-going efforts.

PART 3.0 ANALYSIS AND INTERPRETATION

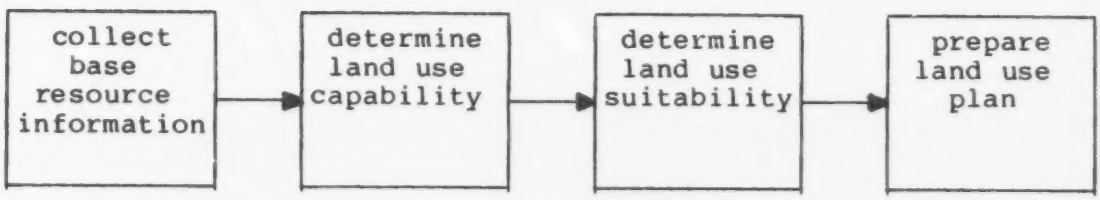
3.1 Study Methodology

The plan was first initiated in January, 1983. In setting out the study methodology, it was recognized that the plan is essentially a refinement of the Vanderhoof Study No. 2. The Crown land to be addressed was scattered throughout the plan area and it was more of an infilling situation which required resolution rather than the designation of extensive blocks of Crown land. Consequently, the plan process did not warrant preparation of alternative plan options, cost/benefit studies with regard to resource allocation or a formal suitability analysis to determine best land use designations.

A schematic of the study methodology is provided in Figure 3. Four basic steps were defined. This chapter reviews the base resource information collected, inventoried and assessed for this plan. Since this information was to serve as the basis for the detailed plan formulation process, the range of information examined was broad, providing a comprehensive view of the main bio-physical, demographic and economic characteristics of the plan area.

FIGURE 3

The Planning Process


collect base resource information
determine land use capability
determine land use suitability
prepare land use plan

Various agencies conducted indepth field investigations over Crown land in order to determine detailed capability ratings. Those investigations took place throughout the summer and fall of 1983. The capability of land for agricultural, wildlife and fisheries and recreational resources was described using a classification system devised for the Canada Land Inventory. The agricultural resources, however, were assessed at a much more detailed level (1:20,000) than the CLI soils maps. The capability of land for forestry uses was inferred from an assessment of a number of factors such

as existing timber volumes and site characteristics. Similarly, range capabilities were inferred through Animal Unit Months estimations. Aggregate resources were described only in terms of potential sources since the Ministry of Transportation and Highways was unable, due to costs, to test all of the sites.

Land suitability analysis combined the inherent capability of the land for settlement uses and resource production with other criteria such as access, proximity to other land uses, to determined whether land which is capable for a particular use is or is not suitable for that use. Suitability analysis was only undertaken on land which had high capability for two or more uses. Where Crown land demonstrated a high capability rating for only one land use, the Task Force designated the land for that use.

Areas with two or more land use values were divided into fifteen blocks of Crown land as identified on page A-2. For each block, informal suitability assessments were undertaken for each of the competing land uses. The list of suitability criteria for each land use designation is provided in Section 3.2. By limiting the suitability assessments for each land use to specific conflict areas, the Task Force was able to concentrate on problems which were directly relevant to the land designation process.

The final step in the planning process concerned the preparation of the Crown Land Plan. The land use capability and suitability information was correlated with a general assessment of land requirements (see Section 3.3) as the basis for the allocation of Crown land amongst the six land use designations. This process, in conjunction with the public comments (see Section 3.4) led to the designations of the Vanderhoof Area Crown Land Plan.

3.2 Suitability ANALYSIS

3.2.1 Settlement Related Land Uses

This land category includes a broad range of settlement related land uses. The primary land uses include rural residential, commercial, industrial, recreational cottage, intensive agricultural and waste disposal. Though a similar

range of suitability criteria would be employed to assess each land use, some criteria may be specific to individual land uses. The following list does not differentiate to which land use each is applicable.

(a) Terrain capability for development
(b) Present land use and status including reserves and other tenures.
(c) Compatibility with adjacent land uses.
(d) Availability of physical services, primarily roadway or road access.
(e) Proximity to existing settlement nodes or desireable locational features such as lakes.
(f) Regional District land designations/zoning.
(g) Regional District and Municipal Affairs settlement policies.

3.2.2 Agricultural Use

(a) Agricultural capability ratings as determined by detailed site inspections.
(b) Agricultural capability ratings of adjacent parcels.
(c) Feasibility of creating individual farming unit (ie. is the parcel transected by barriers such as deep creek ravines or major transportation corridors).
(d) Present land use and status including reserves and other tenures.
(e) Proximity to existing road network.
(f) Proximity to existing agricultural development.
(g) Regional District policy and land designations/zoning.

3.2.3 Forest Use

(a) Canada Land Inventory forestry capability ratings.
(b) Forest resource values as interpreted from forest cover mapping.
(c) Present land use and status including grazing reserves and other range tenures.
(d) Size of timbered area.
(e) Proximity to existing wood manufacturing mill.
(f) Regional District policies and land designations/zoning.

3.2.4 Recreation and Conservation Use

(a) Canada Land Inventory recreation capability ratings.
(b) Present land use and status including reserves and other tenures.
(c) Recreational areas of particular interest.
(d) Recreational fisheries value.
(e) Heritage resource values.
(f) Proximity to settlement nodes.
(g) Distance from a primary or secondary roadway.
(h) Number, type and quality of recreational sites in the vicinity.
(i) Development capability.
(j) Compatibility with adjacent land uses.
(k) Regional District policies and land designations/zoning.

3.2.5 Fish and Wildlife Habitat Use

(a) Wildlife and fishery resource values as established by Fish and Wildlife Branch.
(b) Present land use and status including reserves and other tenures.
(c) Compatibility of adjacent land uses.
(d) Degree of development of the land and adjacent areas.
(e) Regional District policies and land designations/zoning.

3.2.6 Aggregate Use

(a) Potential surficial deposits as determined by the Ministry of Transportation and Highways.
(b) Present land use and status including reserves and other tenures.
(c) Proximity to market and use area.
(d) Proximity to existing road or rail access.

3.3 Requirements for Crown Land

In order to rationally designate the Crown land within the study area, the general land requirements for each of the primary land uses were assessed as follows.

3.3.1 Settlement Reserve Areas

Settlement Reserves were designed to accommodate a wide range of land uses. These primarily include rural residential, commercial, industrial, cottages, intensive agricultural and waste disposal.

(a) Rural Residential Land Requirements

The demand for rural residential lots has largely been accommodated through the private real estate market. Since almost all of the land in the immediate vicinity of Vanderhoof is in private ownership, the Ministry has not been very active in the rural subdivision market. A cursory assessment of the present situation suggests that while the demand is low, the supply of potential private subdivision lands outside of the ALR has also decreased. Therefore, a specific need for the few ALR excluded Crown land parcels adjacent to the municipality for rural residential uses may arise in the next few years.

A similar situation exists in the Fraser Lake and Fort Fraser areas. In both of these areas, however, the existing supply of rural lots is fairly high compared to a low demand. In the next few years, especially in view of the Alcan proposal, this demand will likely increase in which case the need would arise for Crown rural residential properties to supplement the range of lots available through the private market.

Other areas which suggest a potential need for Crown rural residential land over the time-frame of this plan are the corridors between Fraser Lake and Francois Lake, in the vicinity of Fort Fraser, south of the B.C. Timber Sawmill and along Highway 16 north of Cluculz Lake.

(b) Commercial Land Requirements

Commercial developments are mainly located inside municipalities or in association with existing settlement centres along Highway 16. The demand for additional commercial land is low, thus the present supply of private commercial properties will, for the most part, satisfy immediate needs. The demand for commercial land will likely increase in the next few years as a result of the proposed Alcan smelter and its associated spin-off growth. Should it proceed, additional Crown land may be needed for commercial purposes, especially along the highway corridors.

(c) Industrial Land Requirements

Industrial sites in the plan area consist mainly of two major sawmills. Other light and heavy industries are located inside municipalities. The Regional District of Bulkley Nechako and Village policies reinforce the concentration of industrial uses inside incorporated areas, consequently the use of Crown land in the rural area for such purposes is limited.

At the present, Crown land requirements for industrial uses are low, but this situation could change once the Alcan Reduction Plant construction is underway.

(d) Recreational Land Requirements

Interest in obtaining recreational cottage lots on Crown land in the plan area has been low. Over the past four years, the Ministry of Lands, Parks and Housing has disposed 30 existing scattered shoreland lots on a lease only basis.

The demand for recreational lots has basically been met by the private sector. Since most of the prime sites have already been developed inside the plan area, the availability of suitable Crown land for this purpose is limited. To date, approximately

fifty percent of the cottage lot demand has been accommodated on lakes beyond the plan boundary.

(e) Intensive Agricultural Land Requirements

Although the Vanderhoof area supports a very active primary agricultural industry, related secondary industries are few in number. It is anticipated that a long-range potential may exist for the introduction of feedlots and an animal processing operation. Crown land in suitable locations may be required to meet the expansion needs of these agricultural-related commercial/industrial enterprises.

(f) Waste Disposal Land Requirements

The municipalities of Vanderhoof and Fraser Lake are both in need of new municipal waste disposal sites in the near future. Suitable Crown lands located within a reasonable hauling distance will be required for these new operations.

3.3.2 Agricultural Land Requirements

An indication of the demand for Crown agricultural land is best exemplified by past growth trends. The agricultural industry has expanded considerably over the past fifteen to twenty years. This expansion has occurred primarily through the disposition of vacant Crown land. Since 1963, the Ministry has made approximately 42,100 hectares available to the farming community in the Vanderhoof area.

The land base has gradually been put into production. In 1971, there was an estimated 17,430 hectares of improved agricultural land in the plan area. By 1981, this figure had increased to 44,205 hectares representing an increase of over 150 percent in ten years. Almost a quarter of this cultivation has taken place on the Crown agricultural leases issued since 1963. It is expect that the development trend of agricultural land will continue in the future. Since 1981, the Ministry issued 113 leases which amount to approximately 12,740 hectares of Crown land.

Another aspect of the increased agricultural activity relates to the growth of farm capital. As shown in Table 12, the value of farm capital increased from 19.2 to 127.2 million dollars between 1971 and 1981. This high rate of investment illustrates the growing importance of agriculture to the area.

All of these high growth trends suggest that the agricultural industry will continue to expand. The growth of the industry, however, can no longer depend so heavily on extensive agriculture. Serious consideration must be given to intensifying agricultural practices. If past trends were to continue, the demand for Crown agricultural land over the next fifteen years would come to about 30,000 hectares, many times greater than the available supply.

3.3.3 Forest Land Requirements

The forest industry, which consists of a few large sawmills and numerous small operations, provides the basic economic activity of the Vanderhoof-Fraser Lake area. The four major sawmills export most of their annual production of lumber to U.S. markets. All of the chips that the sawmills produce are sold to pulp mills outside of the plan area. (Prince George and Kitimat).

The major forest industries in the Vanderhoof area have the capacity to utilize just over two million cubic metres of timber annually. Over the next twenty years it is not expected that this capacity would increase as the timber supply in the Prince George TSA is fully committed.

Supply Block D of the Prince George TSA not only provides a portion of the timber requirements of those mills listed in Table 11 but also provides timber for other forest operators located near Prince George. The allowable annual cuts (AAC) do not meet the mill requirements of the Vanderhoof area, therefore other private sources must be explored.

Currently, the forest companies obtain their wood supply from Crown Land outside the plan area and from various private sources within the plan area. In 1983, timber harvested from inside the plan area was approximately 400,000 m^3; 61,000 m^3 was derived from private farms, 300,000 m^3 from agricultural leases, 40,000 m^3 from small business operators and 1,500 m^3 from woodlot licenses. Approximately 1,400,000 m^3 were harvested from outside the plan area, i.e. forest licenses 1,360,000 m^3, timber sale licenses 4,400 m^3 and small business 15,000 m^3. Of the 1,400,000 m^3 harvested outside the plan area some 380,000 m^3 went to mills near Prince George.

It should be noted that the percentage of cut from inside the plan area will diminish over time as productive forest land is converted to non-forest uses.

It is expected that by 1986 the AAC allotted to all the forest companies from the existing Provincial Forest Reserves will increase to approximately 1.6 million cubic metres. The additional volume will be made available through the small business program 164,000 m^3 and woodlot licenses 17,000 m^3. Additional wood will also be cut from private land, licenses to cut and timber sales. However, this volume which is not part of the AAC will be depleted over time. Eventually timber will only be available from Provincial Forests.

3.3.4 Recreation Land Requirements

The demand for public recreational opportunities has been increasing but the lack of a suitable public land supply limits the potential for future development. The demand has primarily been on lake and river shorelands which were of easy commuting distance from the Villages of Vanderhoof and Fraser Lake. Since the majority of prime riverfront and lakeshores are already in private ownership, Crown land with a moderate capability for recreational uses takes on a higher significance.

3.3.5 Wildlife Habitat Requirements

The plan area includes a number of very important habitat environments for a wide variety of fish and wildlife species. The protection of vital habitats is the key concern of wildlife management programs. It has been well documented that as habitats are lost to settlement land uses or are disturbed by resource activities, wildlife populations decline. In order to ensure that adequate fish and wildlife populations are maintained into the future, the plan must identify and protect from incompatible land uses critical wildlife habitats.

An effort needs to be made to protect three specific wildlife groups. The first consists of ungulates, particularly moose and deer. The most important areas are along lakeshores and river corridors. It is recognized that while the plan is able to protect critical habitats on Crown land, the proportion of Crown land in relation to private land is small, only twenty-nine percent. Therefore, the measure of success of wildlife enhancement programs depends largely on the extent of future development on private lands. In order to protect remaining habitats, the Fish and Wildlife Branch has proposed Crown land reserves in a number of critical areas. The other habitats which require protection are migratory bird feeding areas and fish spawning rivers and streams.

3.3.6 Aggregate Land Requirements

Aggregate resources within the plan area are not plentiful due to the area's geological history. Nevertheless, the Ministry of Transportation and Highways requires a large amount of aggregates in the construction and maintenance of the regional road network. In addition, private individuals regularly request access to Crown aggregate areas for road and building construction purposes. Since the long term demand for aggregates is very high, potential aggregate sites need to be reserved for future use.

3.4 Public Participation Program

The public participation program has been organized into two stages. The purpose of the first stage was to introduce the study to local governments, interest groups and the public at large for review and comment. The purpose of the second stage was to present the concept plan.

3.4.1 Stage I

Public involvement was initiated early in the planning process to ensure that the general direction, summary of issues and objectives of the study adequately reflected their concerns. This involved a formal presentation of the project terms of reference to area municipalities (Regional District of Bulkley-Nechako, District Municipality of Vanderhoof, Village of Fraser Lake), to the Vanderhoof Area and Fraser Lake Area Advisory Planning Commissions and to the Nechako Valley Regional Cattlemen's Association. It also involved an open house public meeting held for a full day in Vanderhoof on July 21, 1983.

The open house meeting consisted of an informal presentation of information brochures, display posters and maps. Ministry staff were on hand to answer questions. In spite of an active advertising campaign, overall attendance was quite low, totalling approximately 25 individuals. Farmers/ranchers accounted for about 75 percent of this total.

In each of these public forums, the reaction to the planning study and the terms of reference was favourable. The comments suggested the study approach was acceptable and that the objectives adequately reflected the public's concerns. Specific points raised at these meetings were kept in mind throughout the subsequent stages of the project and are summarized in Appendix C.

3.4.2 Stage II

A second round of the public participation program was initiated upon completion of the concept plan. The purpose of the second stage was to present the recommended concept plan to the public for review and comment. This involved a meeting with the Fraser Lake Council, a joint meeting with the local Directors of the Regional District of Bulkley-Nechako and the local Advisory Planning Commissions, a representation before the annual meeting of the Nechako Valley Regional Cattlemen's Association and a public open house.

Generally, the plan was well received and the public participation program appreciated. The few questions which were raised at the meetings dealt primarily with the method of disposition of agricultural land, not with the recommended plan designations. The comments raised in each meeting are outlined in more detail in Appendix C.

The open house was held on April 25, 1984. As with the open house in Stage I, the format was informal. Maps and posters were on display and plan summary brochures were distributed. About sixty people attended, spending between twenty and thirty minutes reviewing the presentation and the draft Crown Land Plan map. Ministry staff, as well as representatives from the Ministries of Forests, Agriculture and Food, and Transportation and Highways, were on hand to explain the features of the plan and to answer questions.

In addition to comments received at the public meetings, the Ministry received six individual submissions throughout the course of the study. Five of these submissions were statements of interest in specific parcels of Crown land for agricultural purposes. The sixth was a lengthy submission which dealt with a number of issues including lease applications, the public participation program, management of forests and agricultural policy. Each of these submissions was individually responded to by the Ministry.

PART 4.0 PLAN MAP

The Vanderhoof Area Crown Land Plan is detailed on Map 10 (see back cover). Crown land is allocated amongst six primary land use designations; settlement (proposals for rural residential, commercial or industrial developments), agriculture, forestry, recreation and conservation, wildlife habitats and aggregates. Six sub-headings have been assigned to the forestry designation as an indication of alternate land use values. The total hectarage designated for each land use category is shown in Table 14.

TABLE 14
VANDERHOOF AREA CROWN LAND PLAN
PLAN DESIGNATIONS AND AREA

Plan Designation	Area (Ha.)	% of Total Crown Land
Settlement Reserve Area (SRA)	1,800	3.5
Agricultural Development Area (ADA)	3,160	6.1
Recreation and Conservation Management Area (RCMA)	1,940	3.7
Wildlife Habitat Management Area (WHMA)	2,040	4.0
Aggregate Management Area (AMA)	340	0.7
Integrated Forest Management Area		
IFMA - Forest Management Emphasis	25,820	49.9
IFMA - Community Pasture Emphasis	7,820	15.1
IFMA - Wildlife Habitat Emphasis	6,600	12.8
IFMA - Recreation and Conservation Emphasis	520	1.0
IFMA - Sand and Gravel Emphasis	410	0.8
IFMA - Sand and Gravel Reserve	1,260	2.4
TOTAL	51,710	100.0

4.1 Rationale for Plan Designations

4.1.1 Settlement Reserve Areas

As shown in the land requirements section, Crown land needs to be reserved for a range of settlement land uses, primary of which include rural residential, commercial, industrial, recreational cottage, intensive agricultural and waste disposal. In designating Settlement Reserve Areas (SRA) for each of these purposes, a major concern was to maintain the option for development on suitable parcels of Crown land should a need arise over the time-frame of the plan.

SRA designations for rural residential purposes have been established in five potential growth areas; along the corridor between Francois Lake and Fraser Lake (see Appendix D), around Fort Fraser, south of the B.C. Timber sawmill,east of Vanderhoof and along Highway 16 north of Cluculz Lake. Each of these parcels have secondary land use options identified which will have preceence until development for rural lots is deemed appropriate.

Two small parcels have been identified for commercial purposes because of their choice location along Highway 16 and because they are not suitable for agricultural purposes.

A section of land west of Fort Fraser is reserved for industrial uses because the Regional District has identified the site as the only prime site for this purpose in the Fraser Lake - Fort Fraser vicinity.

Several sites are identified for recreational lots around Fraser and Cluculz Lakes because of the importance of these lakes as recreational features. Two parcels in the Fraser Lake vicinity have only a limited potential for additional lots, therefore, the secondary land use considerations will take on an extra emphasis.

A small parcel northwest of Hogsback Lake has been identified for community use because of its location adjacent to the Mapes Community Hall.

A large parcel of non-arable Crown land is located within the agricultural community south of Vanderhoof. The parcel has been identified as a long-range potential site for an agricultural related commercial/industrial operation such as a feedlot. The Regional District has also expressed an interest in the area as a potential waste disposal site for Vanderhoof.

4.1.2 Agricultural Development Areas

The agricultural capability map (Section 2.1.4) indicates all Crown land parcels which have a soils capability to support intensive agricultural production. Each of these parcels were assessed using the criteria outlined in Section 3.2.2 to determine whether they are suitable for agriculture. Those parcels which were determined to be suitable for agriculture were then examined in relation to other settlement or resource values. The ADA represents all Crown land parcels which have a soils capability and are suitable for agriculture and which are not subject to more important values in other settlement or resource land uses.

Examples of suitability considerations which precluded the designation of Crown land as ADA's despite a high capability for agricultural are summarized below:

(a) distance to agricultural areas;
(b) access constraints;
(c) topographic constraints;
(d) insufficient amount of agricultural land identified to warrant development; and
(e) climate restrictions.

A few of these parcels, however, were considered to have higher values in either settlement or wildlife habitat land uses.

It is of interest to note that only one quarter of the above mentioned parcels (530 hectares of a total 2,030 hectares) are within the ALR.

4.1.3 Integrated Forest Management Areas

A major concern of the IFMA is to identify and reserve areas which are best suited to forestry land uses so that long-term forest management programs can be initiated. To date, little intensive forest management has been carried out on vacant Crown land in the plan area due to the uncertainty surrounding land allocation. Since the IFMA lands are secured for long-term timber production, the timber volumes can be included within the Prince George TSA analysis.

Through careful examination of each parcel, the Task Force has concluded that none of the IFMA designated lands is suited to settlement related or agricultural land uses at present nor will they likely be suited to those uses over the time-frame of the plan.

4.1.4 Recreation and Conservation Management Areas

The amount of public recreation land within easy commuting distance of the Villages of Vanderhoof and Fraser Lake is limited. As indicated in Section 3.3.4, the greatest demand for recreation lands is along lakeshores and riverfronts.

The RCMA designation also includes Crown land which is important from a conservation perspective. Conservation areas usually have particular natural or physio-graphic assets which are sensitive to man related disturbances. Conversely, conservation areas may exhibit natural or physio-graphic features which present hazards to development.

Most of the lakeshore surrounding Fraser Lake and Cluculz Lake has already been alienated. The public recreation and conservation values of the few remaining Crown parcels, therefore, take on a higher significance. Consequently, in most cases, they have been designated RCMA.

A number of large Crown parcels located along the Nechako River demonstrated high recreational values and, as such, were designated RCMA. Similarly, two Crown parcels located along Highway 16 north of Cluculz Lake have been designated RCMA to serve the travelling public.

All islands which are comprised of unencumbered Crown land and which are located in either lakes, rivers or streams, as well as numerous small Crown land parcels located throughout the plan area, are designated RCMA due to their importance from a conservation perspective.

4.1.5 Wildlife Habitat Management Areas

A large percentage of the Crown land which has high wildlife habitat values can be accommodated under the IFMA or the RCMA designations. A number of areas, however, demonstrated particularly high habitat values and, as such, were designated WHMA.

Five areas proved to be particularly important to ungulates, including moose, mule deer and white-tailed deer. These areas are located between Fraser and Drywilliam Lakes, along the Nechako River in the vicinity of Diamond Island, along the north shore of Tachick Lake, along the Nechako River in the vicinity of Finmoore and at the east end of Cluculz Lake.

Two areas are designated WHMA because of important fisheries values in addition to wildlife habitat values. The first involves Crown land located along the length of the Stellako River. The second includes the lower reach of Smith Creek.

4.1.6 Aggregate Management Areas

Aggregate Management Areas have been established over all existing sand and gravel reserves which are segregated from Crown land designated IFMA.

4.2 Implication For Other Management Programs

4.2.1 Grazing Programs

Despite the present economic situation, it is anticipated that the local cattle industry will continue to expand in the long-term and, as a result, an increasing demand of Crown land for grazing purposes is expected. In the short term, much of the range land can be provided through range land improvements within or outside of community pastures. However, grazing will be affected by the amount of Crown land designated for agricultural development in the Plan since range permits will be relinquished over all of the area designated ADA during the next four years. This reflects the intensification of agriculture. Though the total AUM's of range permits will be reduced, the more intensive agricultural practices will result in an expanded argicultural industry. It can also be anticipated that much greater emphasis will be placed on the provision of range land as part of timber harvesting and range management programs of the Ministry of Forests. Most of the future grazing opportunities on Crown land will therefore occur within a Provincial Forest boundary.

Generally, the range permits will be accommodated as a conditional activity in each of the remaining designations (SRA, RCMA, WHMA, and AMA), until development for the primary land use is undertaken. Although much of the plan area was covered by range permits, the Vanderhoof Area Crown Land Plan should not affect the specific management programs undertaken by the Ministry of Forests.

4.2.2. Forestry Programs

The plan identifies Crown land considered desirable for integrated forest management programs. The Ministry of Forests is proposing to include the most suitable of these Crown lands within the Nechako Provincial Forest for long term timber production and associated uses, including grazing, recreation, watershed protection and provision of fish and wildlife habitat. The selection of a specific management program to be

applied is the responsibility of the Ministry of Forests. Once the IFMA has been reserved within the Provincial Forest, silvicultural programs necessary to enhance forest productivity will be undertaken.

To date, little intensive forest management has been carried out on vacant Crown land in the plan area due to the past uncertainty surrounding land allocation. The amount and location of forest land designated for forestry will enable refinements of the Prince George TSA analysis and amendment of the Nechako Provincial Forest boundaries.

4.2.3 Fisheries and Wildlife Habitat Programs

In order to ensure that healthy fish and wildlife populations are maintained into the future, critical habitats must be protected. Without government commitment to habitat conservation, the decline in wildlife resources may lead to restrictions and eventual curtailment of all harvesting activities. Non-consumptive wildlife use would also be subject to several limitations. From the reverse point of view, the establishment of fish and wildlife habitat management areas will require some restrictions on Crown land alienation adjacent to critical lakes and streams.

The administration of WHMA lands is the responsibility of the Ministry of the Environment. The plan provides the land base upon which to enhance and expand its on-going fisheries and wildlife habitat management programs. The wildlife habitat emphasis areas within the IFMA reflect habitat of slightly less importance. The Ministry of Forests will undertake multi-resource management programs in these areas in consultation with the Ministry of the Environment.

4.2.4 Recreation Programs

Crown land which is most suitable for recreational land uses has been identified by the plan. This land base will be available for recreational programs put forth by a variety of organizations including the Parks Division of

the Ministry of Lands, Parks and Housing, the Regional District of Bulkley-Nechako or non-profit community organizations. Until recreation development proposals are initiated, the RCMA's will be maintained for extensive recreational opportunities.

4.2.5 Regional District Policies and Programs

The Vanderhoof Area Crown Land Plan complements the existing planning efforts of the Bulkley-Nechako Regional District. Their Official Settlement Plans emphasize the management and regulation of settlement orientated development whereas this plan concentrates on the allocation of Crown land to specific resource uses.

The Ministry of Lands, Parks and Housing, however, does consider it necessary to maintain future land use options by reserving Crown land for future settlement development purposes until required for utilization. The intent is to reserve suitable Crown land in anticipation of possible needs over the next fifteen to twenty years. Should the Ministry of Lands, Parks and Housing identify a need to develop a specific SRA site, it would be strongly influenced by the Regional District policy and zoning. The Regional District recognizes the different objectives in the two levels of planning and is in agreement with the implementation policies.

4.2.6 Agricultural Land Commission Programs

Implementation of the plan will require, in some cases, the consent of the Agriucltural Land Commission. Some of the SRA lands lie in the ALR and are subject to the Agricultural Land Commission Act. Application to the Commission would be required prior to their development. Arrangements would also be made to include those parcels suitable for agriculture in the ALR, but which are presently excluded.

PART 5.0 CROWN LAND DESIGNATIONS AND POLICY GUIDELINES

5.1 Plan Interpretation

AGRICULTURAL LAND RESERVE (ALR) means the Agricultural Land Reserve established pursuant to the Agricultural Land Commission Act to protect land with agricultural potential for future agricultural use, and to encourage uses compatible with agriculture.

APPLICANT means a person applying for a disposition of Crown land under the Land Act respecting Crown land.

CONCEPT PLAN means the Vanderhoof Area Crown Land Concept Plan of the Ministry of Lands, Parks and Housing which outlines the task force's proposed land use designations for Crown land within the plan area.

CONSERVATION means the act of planning and managing lands, buildings, natural resources or environmental features to ensure that their full potential can be realized in the future when required by society.

CROWN means Her Majesty in right of the Province of British Columbia.

CROWN LAND PLAN means the Vanderhoof Area Crown Land Plan (VACLP) which contains Crown land designations, policy guidelines and Plan Map and is adopted under authority of the Minister of Lands, Parks and Housing.

CROWN LAND DISPOSITION means the act of disposal by which an interest in Crown land is transferred from the Crown to an interested party, or by which the Crown divests itself of Crown land.

DESIGNATED LAND means Crown land which has been assigned a most desirable use and withdrawn from disposition under Section 13 of the Land Act for any purpose other than the designated use.

FLOOD HAZARD AREA means a low land area or floodplain, whether flood-proofed or not, which by reason of land elevation is susceptible to periodic flooding from an adjoining stream, lake or other body of water.

LAND CAPABILITY means the natural ability of land and resources to support a specified activity or use, based on the natural biological and physical (biophysical) characteristics of the land.

LAND DESIGNATION means the land use category to which Crown land is allocated by the Vanderhoof Area Crown Land Plan pursuant to Section 13 of the Land Act.

LAND SUITABILITY means the ability of the land to support a given activity based upon biophysical characteristics and the constraints and advantages of the land due to existing use, location, and a variety of social, economic and policy factors.

LINEAR DEVELOPMENT means a right-of-way or easement for telephone lines, oil and gas transmission lines, power lines, sewage outfall lines and other public utilities.

MLPH means the B.C. Ministry of Lands, Parks and Housing.

PLAN AREA means the Vanderhoof Area (VA) as described and mapped in the Crown Land Plan and Concept Plan. It excludes privately-owned land, the Fort Fraser townsite, the Village of Fraser Lake and the District Municipality of Vanderhoof, and is synonymous with the Vanderhoof and Fraser Lake Settlement Areas as determined by the Nechako Provincial Forest boundaries.

RECLAMATION means the manipulation, recontouring and revegetation of a land surface disturbed in the extraction of sand, gravel, and minerals or by other land uses in order to restore it to a desirable productive use.

RESERVED LAND means Crown land that has been withdrawn from disposition under the Land Act or some other Act.

RESPONSIBLE AGENCY means the government agency identified in the Crown Land Plan as responsible for the management, planning and jurisdiction of Crown lands assigned to a specific land allocation category.

TASK FORCE means the inter-agency committee consisting of representatives from Provincial Ministries and the Regional District of Bulkley-Nechako. The objectives of the Task Force were to address land use issues and assist in the preparation of the Crown Land Plan.

5.2 General Provisions

5.2.1 Relationship to Land Act

This Crown Land Plan shall assist the Minister of Lands, Parks and Housing in carrying out the responsibilities pursuant to the Lands, Parks and Housing Act and the following responsibilities pursuant to the Land Act (R.S.B.C., Ch. 214):

(a) The administration of all Crown land in the Vanderhoof Plan Area, except Crown land under the specific administration of another Minister, branch or agency of government (Land Act, S.4).

(b) The disposition of Crown land in the Vanderhoof Plan Area by lease, license, easement right-of-way or direct sale in the public interest (Land Act, S.8).

(c) The reservation of Crown land from disposition by Order-in-Council Reserve for any purpose considered advisable in the public interest (Land Act, S.11).

(d) The temporary withdrawal of Crown land from disposition by Map Reserve for any purpose considered advisable in the public interest (Land Act, S.12).

(e) The designation of the most suitable use of Crown land and its withdrawal, in the public interest, from disposition for any purpose other than the designated use by Land Act designation (Land Act, S.13).

(f) The amendment or cancellation of reserves, designations, and withdrawals from disposition pursuant to the Land Act (S.11, 12 and 13).

5.2.2 Relationship to Other Statutes, Regulations and Procedures

(a) This Crown Land Plan shall assist the Minister of Forests, the Chief Forester and the Lieutenant-Governor-in-Council in carrying out their responsibilities pursuant

to the Ministry of Forests Act (R.S.B.C., Ch. 272) and the Forest Act (R.S.B.C., Ch. 140), and particularly in the designation of forest land as Provincial Forest Reserve.

(b) The Ministry of Forests shall continue to recognize the land use designations and management guidelines over Integrated Forest Management Areas after they are incorporated into the Provincial Forest Reserve.

(c) The designations and provisions of this Plan in no way supersede the jurisdiction of various agencies, commissions and ministries to pursue goals and functions assigned under Provincial and Federal Statutes.

(d) Compliance with the provisions of this Crown Land Plan in no way absolves Crown land applicants and tenure holders from compliance with local government Official Settlement Plans and zoning regulations, relevant B.C. and Federal Statutes, and terms and conditions of existing and future Crown land tenures.

(e) The provisions of this Crown Land Plan shall reinforce and supplement the land administration policy and procedures established by the Ministry of Lands, Parks and Housing.

(f) The provisions of this Crown Land Plan shall reinforce and supplement existing Agreements established between the Ministry of Lands, Parks and Housing and other Ministries and agencies of the Crown governing the administration and use of Crown land for various purposes.

(g) The designations and provisions of this Plan in no way preclud the utilization of Crown land for explo ion, extraction, reclamation or other and activities authorized pursuant to Provincial and Federal Statutes and regu ions.

5.2.3 General Management and Planning Guidelines

(a) All Crown land within the study area is designated under the Land Act, Section 13, for the specific use shown on the Plan Map and is thereby reserved for permitted and conditionally permitted uses specified in the policy guidelines.

(b) The policy guidelines will reinforce and supplement but not supercede the policies of other agencies.

(c) Applications for Crown land for uses permitted and conditionally permitted by the Plan shall be processed and adjudicated by the agency responsible for management of the Crown land, as identified for each individual land use designation. Applications for Crown land which remains the jurisdictional responsibility of the Ministry of Lands, Parks and Housing shall be processed and adjudicated according to MLPH policy.

(d) Applications for public institutional uses, including hospitals, penal institutions, educational institutions, community parks, research and other facilities designed to serve broad community interests, shall be entertained in all land use designations of the Plan which remain under the jurisdiction of Lands and Housing Regional Operations Division, MLPH, and shall be evaluated on their individual merit pursuant to MLPH policies on institutional and community uses.

(e) Development proposals for all land use designations in areas of known heritage sites shall be referred to the Heritage Conservation Branch for comment and impact assessment.

5.2.4 Plan Map Interpretation

The Ministry of Lands, Parks and Housing shall interpret the specific location and extent of each land use designation of the Plan Map when Crown land applications are made pursuant to the Plan Map in areas where boundaries do not coincide with district lot boundaries, other legally-defined boundaries, or man-made or physical boundaries.

5.2.5 Private Lands

Privately owned lands which may be shown on the Plan Map as allocated to a specific Crown land use are not governed by the provisions and policy guidelines of this Plan.

5.2.6 Existing Crown Land Reserves

(a) Order-in-Council Reserves established under Section 11, Land Act or any other Act are not altered or affected by the provisions of this Plan.

(b) In accordance with Ministry policies, existing Section 12 Land Act Map Reserves shall be reviewed in this Plan and the land assigned to specific land categories. Redundant reserves shall be cancelled and the land secured by the individual Section 13 Land Act designation.

(c) Section 12 Land Act reserves not cancelled pursuant to this Plan shall be re-evaluated relative to their merit and purpose at the first formal Plan review.

5.2.7 Agricultural Land Reserve - Crown Land

(a) Applications for Crown land uses not permitted as outright uses in an Agricultural Land Reserve (ALR) shall be forwarded to the Regional District and Agricultural Land Commission for approval, in accordance with Ministry policy and both the Agricultural Land Commission Act and the Regulations pursuant to this Act.

(b) Soil removal or placement of fill material associated with sand and gravel operations on ALR Crown lands shall require a permit from the Regional District pursuant to the Soil Conservation Act.

5.2.8 Flood Hazard on Crown Lands

All use applications and development proposals for Crown lands located on areas prone to flooding shall be referred to the Ministry of Environment for comment, pursuant to Section 82(1) and (2), Land Titles Act. Special terms and conditions may be imposed to govern the development of such lands, including restrictive covenant for tenures leading to clear title of land, to minimize property damage, injury and other flood-related hazards.

5.2.9 Linear Developments and Roadways

(a) Linear Developments and roadways shall, wherever possible, be required to minimize land disturbance, adverse environmental impact, and the unnecessary fragmentation of Crown land.

(b) Major right-of-way proposals for Crown lands in the plan area which are subject to existing Provincial guidelines governing review and approval of linear developments and major energy projects shall be forwarded to the appropriate co-ordinating agency for review and assessment.

5.3 Settlement Reserve Area (SRA)

5.3.1 Definition

Crown lands with suitability for a range of future settlement-oriented uses and which should be reserved until development for an appropriate use is considered desirable.

5.3.2 Purpose

(a) To maintain future land use options by reserving Crown land for future residential, industrial, commercial, institutional or recreational requirements of the public and private sector until required for utilization.

(b) To identify and reserve sufficient Crown land to meet anticipated rural residential Crown land requirements.

(c) To encourage the use of suitable Crown land for residential, industrial, and commercial uses pursuant to the goals, objectives and development programs of the Ministry of Lands, Parks and Housing.

5.3.3 Responsible Agency

The Regional Operations Division, MLPH, retains responsibility for administration of SRA lands.

5.3.4 Permitted Uses and Activities

Full range of non-tenured uses, which include but are not limited to the following:

(a) extensive recreational activities by the general public;

(b) wildlife and fisheries management activities; and

(c) uses consistent with open space and scenic buffer functions adjacent to the District Municipality of Vanderhoof, the Village of Fraser Lake and the Fort Fraser townsite boundaries.

5.3.5 Conditional Uses and Activities

(a) Residential, industrial, commercial, intensive agricultural, institutional and municipal or community recreational uses and activities may be permitted, provided that:

(i) the proposed use is supported by both local government zoning by-law and Official Settlement Plan policy and land designations;

(ii) the proposed use is compatible with adjacent land uses - compatible land uses related to each SRA are listed in Appendix D-1.

(b) Linear developments, roadways and their associated rights-of-way and easements may be permitted, subject to:

(i) conformance with MLPH policy and procedures;

(ii) conformance with the performance requirements respecting linear developments as outlined in Section 5.2.9, General Provisions.

(c) Public Institutional uses on SRA lands may be permitted, subject to conformance with Section 5.2.3 (d), General Provisions, and Section 5.3.5 (a) above.

(d) Selected resource uses and activities may be permitted on SRA lands on a tenured basis, subject to approval of the Regional Director, MLPH, and provided a proposed resource use or activity has been referred to the affected local governments.

(e) Sand and gravel extraction activities on SRA lands may be permitted, subject to Ministry policy and conformance with Section (d) above, and provided that extraction is compatible with adjacent uses and is to occur in accordance with a submitted Development Plan for extraction and reclamation of the pit.

(f) Grazing of domestic livestock may be permitted on an annual basis, subject to conformance with Section 5.3.5 (d) above.

(g) Selected timber harvesting activity may be permitted, subject to conformance with Section 5.3.5 (d) above, and provided such activity is deemed beneficial for enhancement or improvement of the recreational resource or for reduction of fire, insect or safety hazard on public land.

5.3.6 Management and Planning Guidelines

(a) All gravel extraction areas on SRA lands shall be reclaimed to a condition amenable to future use for settlement purposes. Reclamation performance and compliance with an approved Pit Development Plan is a joint responsibility of the Ministry of Lands, Parks and Housing and the Ministry of Energy, Mines and Petroleum Resources, as reflected in Ministry policy on quarry land use.

(b) New sand and gravel extractive operations on SRA lands may be permitted through Land Act leases or licenses. Sites must be sequentially reclaimed to a post-extraction settlement use specified in the terms and conditions of the tenure document.

(c) All proposals for permitted and conditional uses in SRA lands shall be accompanied by a Management Plan, which includes maps and text on site layout, services and infrastructure, and a development time schedule as prescribed by Ministry policy.

(d) Resource use proposals and development proposals for settlement uses on SRA lands shall be referred to the appropriate local government for review and comment.

(e) Rural residential, commercial and industrial development on SRA land will be accommodated pursuant to MLPH policy.

(f) Applications for community or municipal recreational use of SRA lands shall be referred to the Regional District and the Parks and Outdoor Recreation Division for review and comment. SRA land dispositions to non-profit organizations for recreational uses shall be made in accordance with MLPH policy and procedures.

(g) Existing grazing tenures shall be reviewed by the Regional Director, MLPH, in consultation with the Ministry of Forests to evaluate the compatibility of existing tenures with the purpose and intent of SRA lands.

5.4 Agricultural Development Area (ADA)

5.4.1 Definition

Crown lands considered most suitable for agricultural production and necessary for the expansion and development of the agricultural industry in the Vanderhoof area.

5.4.2 Purpose

(a) To identify Crown land suitable for intensive agricultural development.

(b) To promote the efficient disposition and development of suitable Crown land for extensive agricultural purposes.

5.4.3 Responsible Agency

The Regional Operations Division, MLPH, retains responsibility for the management, development and disposition of ADA lands subject to the provisions of the Agricultural Land Commission Act.

5.4.4 Permitted Uses and Activities

(a) Extensive and intensive use of land for agricultural purposes, such as the production and harvesting of field crops and root crops, the operation of tree nurseries and dairy farms or the raising of livestock and other animals on a commercial basis.

(b) Agricultural research, product storage, service facilities and miscellaneous uses associated with agricultural production.

(c) Transportation, communication and public utilities uses associated with and necessary for the settlement of land for agricultural purposes.

5.4.5 Conditional Uses and Activities

(a) Extensive recreational, grazing and wildlife management programs may be permitted on ADA lands which are not immediately slated for disposition prior to an initiation of agricultural development activities and subject to existing tenures under the Land Act or Range Act.

(b) Sand and gravel extraction and processing may be permitted on ADA lands prior to disposition and subject to conditions set by the MLPH.

(c) Linear developments and their associated rights-of-way and easements may be permitted, subject to:

(i) conformance with MLPH policy and procedures; and

(ii) conformance with the performance requirements respecting linear developments as outlined in Section 5.2.9, General Provisions.

(d) Public institutional uses may be permitted subject to conformance with Section 5.2.3 (c), General Provisions.

(e) Timber cutting and harvesting activities may be permitted on ADA lands subject to the terms and conditions established by the Ministry of Lands, Parks and Housing and the timber license conditions of the Ministry of Forests.

5.4.6 Management and Planning Guidelines

(a) The MLPH shall prepare, in consultation with affected provincial agencies, a Development Implementation Strategy for ADA lands. The study will address and evaluate specific concerns with regard to land capability, development and marketing.

(b) The disposition of ADA lands will be carried out according to current MLPH policy.

(c) In conformance with the Ministry's agreement with the Agricultural Land Commission, the Ministry of Lands, Parks and Housing shall make applications to the Agricultural Land Commission for inclusion in the Agricultural Land Reserve boundary all ADA lands presently not within the existing boundary.

(d) In accordance with the specifications of existing Ministry policy, the Ministry of Lands, Parks and Housing,subject to the stipulations of the Forest Act, may preclear ADA parcels with significant timber volumes and, in doing so, shall consider such environmental and agricultural clearing practices as leave strips adjacent to streams and water bodies, field windbreaks and tree shelterbelts, and other soil management practices.

(e) No timber shall be cut, removed or destroyed on ADA lands without a license to cut issued by the Ministry of Forests. Timber removal on ADA lands leased for agricultural use shall be restricted to the arable portions of the land and areas required for buildings or improvements. Remaining standing timber will be disposed pursuant to MLPH policy when the lessee exercises the purchase option of the lease-purchase agreement.

(f) Existing grazing tenures shall be reviewed by the Regional Director, MLPH, in consultation with the Ministry of Forests, to ensure consistency with the purpose of the ADA land use designation.

(g) Future sand and gravel reserves in ADA lands shall be reviewed to ensure provisions for reclamation to a condition amenable to future agricultural use. Once reclaimed, applications for agricultural use may be entertained pursuant to Land Act policy and the provisions of the Plan.

(h) The disposition of ADA lands for intensive agricultural operations shall be made according to existing MLPH policy for intensive agricultural uses and with due consideration of principles established in the "Green Zone" Program of the Ministry of Agriculture and Food for such uses as greenhouses, plant nurseries and intensive livestock operations.

5.5 Integrated Forestry Management Area (IFMA)

5.5.1 Definition

Crown lands considered most suitable for timber production in association with range, watershed and fish and wildlife programs and forest-oriented recreation which should be managed in an integrated and co-ordinated fashion to maximize the long-term environmental, social and economic benefits of these resources for local and regional residents.

5.5.2 Purpose

(a) To allocate suitable lands for the integrated management of forest resources, including intensive silviculture programs.

(b) To reinforce the timber, range and recreation programs of the Ministry of Forests.

(c) To facilitate the coordination of management programs for fish, wildlife, watershed, and sand and gravel resources with timber, range and recreation programs undertaken in a Provincial Forest.

5.5.3 Responsible Agency

The Ministry of Forests assumes responsibility for the management of all IFMA lands, subject to:

(a) The provisions for administration of non-forest uses within Provincial Forests, pursuant to the July 1, 1983 Subsidiary Agreement with the Ministry of Lands, Parks and Housing.

(b) The provisions of an agreement with the Ministry of Agriculture and Food respecting administration of community pasture lands and grazing lands in a Provincial Forest.

5.5.4 Description of Sub-Categories

(a) IFMA - Forest Management Emphasis:

Crown lands considered most suitable for timber production.

(b) IFMA - Community Pasture Emphasis:

Crown land currently under Land Act reserve for community pasture purposes, and in which land clearing and improvements for domestic grazing purposes has been undertaken or is proposed utilizing public funding programs.

(c) IFMA - Recreation and Conservation Emphasis:

Crown lands rated suitable for recreation use and for conservation purposes but which are not so critical as to warrant a RCMA land use designation.

(d) IFMA - Wildlife Habitat Emphasis:

Crown lands rated suitable for wildlife habitat but which are not so critical as to warrant a WHMA land use designation.

(e) IFMA - Sand and Gravel Emphasis:

Crown land identified as being potentially suitable for aggregate use.

(f) IFMA - Sand and Gravel Reserve:

Crown land currently reserved under Section 12 of the Land Act for sand and gravel extraction purposes which are either adjacent to or surrounded by IFMA lands.

5.5.5 Purpose of Sub-Categories

To ensure, within the Integrated Forest Management Area, special recognition of the designated sub-category resource values in forest management programs and activities.

(a) To encourage timber production programs within the Forest Management designated area.

(b) To encourage range improvement programs and practices for community pasture development within the context and purpose of the IFMA land designation.

(c) To encourage enhancement of existing forest recreation programs, and increased extensive forest recreational facilities and opportunities.

(d) To promote an increased awareness of the importance of wildlife habitat management in the integrated and coordinated management of forest land.

(e) To reinforce and support the utilization and appropriate reclamation of lands currently held under Section 12 of the Land Act for sand and gravel purposes, and ensure the availability of supplies to meet future aggregate demands.

5.5.6 Permitted Uses and Activities

(a) Timber production, extraction, utilization and management activities.

(b) Forage production and grazing use for livestock and wildlife.

(c) Wildlife management and habitat enhancement programs.

(d) Extensive, limited-facility forest recreation uses and related management activities.

(e) Watershed and fisheries management and enhancement programs.

(f) Sand and gravel extraction and processing in areas currently held under Land Act, Section 12 reserves.

(g) Other uses pursuant to the Forest Act.

5.5.7 Conditional Uses and Activities

(a) Non-forest uses may be permitted in IFMA areas pursuant to the Forest Act, Section 5(6), and in conformance with the existing Subsidiary Agreement on the administration of Land Act tenures within Provincial Forests.

(b) Leases for agricultural uses excluding community pasture or range uses, leading to land-ownership of IFMA lands, may be permitted under the following conditions as specified in Ministry of Lands, Parks and Housing agricultural policy:

(i) the lease applicant for agricultural use is an established farmer requiring land for immediate expansion of an existing farm operation which lies immediately adjacent to the subject IFMA lands subsequently established as Provincial Forest. The existing farm operation must be occupied by the applicant and must be classified as farmland for taxation purposes by the B.C. Assessment Authority;

(ii) consistant with the Ministry's Land Deletion agreement with the Ministry of Forests, the area for which a lease is issued is subsequently excluded from the Provincial Forest by an Order-in-Council initiated by the Ministry of Forests.

(c) Agriculture, commercial and private recreation, commercial sand and gravel extraction and processing, and other non-forestry uses may be permitted on IFMA lands on a lease-only basis, subject to the following conditions:

(i) application for tenure is subject to the approval, terms and conditions of the Ministry of Lands, Parks and Housing;

(ii) the proposed use meets all terms and conditions of Ministry of Forests policy; and

(iii) the proposed use conforms to the existing Subsidiary Agreements respecting administration of non-forest uses in Provincial Forests, and the administration of grazing tenures.

5.5.8 Management and Planning Guidelines

(a) Crown lands designated Integrated Forest Management Area shall be reserved by Order-in-Council pursuant to the Forest Act as gazetted Provincial Forest. The lands may constitute a new provincial forest or be added to existing, adjacent provincial forests.

(b) Planning and management activities within IFMA lands shall be undertaken with the lead role assumed by the Ministry of Forests.

(c) All applications for non-forest uses in IFMA lands shall be made under provisions of the Land Act, pursuant to the conditions outlined in the Subsidiary Agreement on the Administration of Land Act tenures in Provincial Forests.

(d) Applications for non-forest uses of IFMA lands shall be referred to affected government agencies in accordance with existing MLPH policy.

(e) Timber harvesting plans shall be referred to other relevant resource agencies and to agencies responsible for administration of adjacent Crown lands pursuant to this Plan.

(f) Forest recreation plans and programs for IFMA-Recreation and Conservation Emphasis lands should be developed in conjunction with the Parks and Outdoor Recreation Division, MLPH, and the Regional District to promote an integrated and balanced recreational system in the Plan Area. Wherever considered desirable and feasible, recreation plans should include public recreational trail systems connecting RCMA lands, IFMA - Recreation and Conservation Emphasis lands, and existing regional and provincial parks.

(g) Pursuant to the Subsidiary Agreement with the Ministry of Lands, Parks and Housing respecting the administration of outdoor recreation, the Ministry of Forests should manage and facilitate the use of forest roads within its mandate for outdoor recreational purposes on IFMA - Recreation and Conservation Emphasis lands.

(h) Timber and range utilization plans and programs for IFMA - Wildlife Habitat Emphasis lands should be developed in conjunction with the Ministry of the Environment to ensure compatibility with the wildlife management goals and production targets of that agency.

(i) Leases and licenses for sand and gravel operations shall be subject to Ministry of Forests' and MLPH policies and Ministry of Energy, Mines and Petroleum Resources conditions respecting royalties, management plans, and reclamation requirements. Reclamation of the land to a condition amenable to reforestation may be required.

(j) IFMA - Community pasture lands shall be managed and developed for range improvement purposes by the Ministry of Forests, in conjunction with the Ministry of Agriculture and Food. While the Lily Lake and Tachick grazing reserves are included in the IFMA, the Section 12 of the Land Act shall be maintained. Those Community Pasture Reserves which are in existance are retained by Order-in-Council. The co-ordination and integration of timber cutting, wildlife habitat and recreational uses of these lands should be facilitated through the development of Co-ordinated Resource Management Plans.

(k) Application for Crown land leases and licenses for sand and gravel extraction purposes in IFMA lands should be directed towards IFMA - Sand and Gravel Emphasis areas to minimize the areal impacts of such operations on forest production and enhance efficient supervision of operations and reclamation activities.

(l) Forest utilization and management programs and plans for IFMA - Sand and Gravel Emphasis lands and IFMA - Sand and Gravel Reserves should be developed in consultation with the Ministry of Transportation and Highways and the Ministry of Energy, Mines and Petroleum Resources to futher evaluate the potential of the sand and gravel resource, and to ensure that any anticipated use of such resources will be compatible with forest harvesting schedules and silvicultural programs.

(m) The designation of existing sand and gravel reserves adjacent to or surrounded by lands designated for forestry reflects the character of the general surroundings. It is anticipated that once the aggregates have been depleted, the highest and best land use for the parcel will be timber production. Therefore, while the area will be included within the Provincial Forest Reserve, the Section 12 sand and gravel reserve under the Land Act shall be maintained until the aggregate source is depleted.

5.6 Recreation and Conservation Management Area (RCMA)

5.6.1 Definition

Crown lands considered most suitable for outdoor recreation and natural or heritage conservation uses and which may be required to meet the future outdoor recreational and conservation needs of the region.

5.6.2 Purpose

(a) To secure Crown recreational lands required by communities and by local, regional and provincial government agencies to satisfy their respective park, outdoor recreation and conservation goals and objectives.

(b) To protect valuable recreation and conservation resources, such as viewpoints, scenic areas, heritage sites and unique natural features or representative landscapes of local, regional or provincial significance, from competing or incompatible land uses and resource management activities.

(c) To provide suitable Crown land for expansion of the provincial and regional park and recreation system to enable continued and future recreational use and enjoyment of Crown land by regional communities, residents and recreational user groups.

5.6.3 Responsible Agency

The Lands and Housing Regional Operations Division, MLPH, retains responsibility for administration of RCMA Crown lands until such time as these lands are granted or leased to local governments, communities or recreational user groups, or revested in the Crown for provincial park purposes. The Parks and Outdoor Recreation Division, MLPH, shall act as the primary advisory agency in the administration of RCMA lands.

5.6.4 Permitted Uses and Activities

(a) Full range of extensive, non-facility, recreational activities by the general public.

(b) Fish and wildlife management and enhancement activities of the Fish and Wildlife Branch.

(c) Camps and community recreation halls and uses intended for recreational enjoyment of the general public, operated and developed by non-profit organizations or community associations.

5.6.5 Conditional Uses and Activities

(a) Sand and gravel extraction may be permitted on RCMA lands provided that the size and quality of the aggregates warrant removal and the extraction operation does not unduly disturb existing facilities or scenic features.

(b) Minimal facility development for extensive recreation uses, such as ski-touring and hiking trail systems, and day-use recreation areas, may be permitted provided that:

(i) development is undertaken by local government, community, or a non-profit recreational organization;

(ii) development is compatible with the natural environment and recreation resource values of the land under application; and

(iii) the proposed facility development has the approval of local government and the Parks and Outdoor Recreation Division, MLPH.

(c) Selected timber harvesting activity may be permitted, provided such activity is deemed beneficial for enhancement or improvement of the recreational resource or for reduction of fire, insect or safety hazard on public land.

(d) Linear developments and roadways and their associated rights-of-way and easements may be permitted, subject to:

(i) conformance with MLPH policy and procedures governing such developments, including written consent from any lessee or licencee of the RCMA land affected by the linear development; and

(ii) conformance with performance requirements respecting linear developments as outlined in Section 5.2.9, General Provisions.

(e) Public institutional uses may be permitted, subject to conformance with Section 5.2.3(d), General Provisions and existing Ministry policy.

(f) Grazing of domestic livestock may be permitted on an annual basis, subject to approval of the Regional Director, MLPH, and approval of the responsible agency if a lease, grant or revestment of RCMA land has been made pursuant to this Plan.

5.6.6 Management and Planning Guidelines

(a) All gravel extraction areas on RCMA lands shall be reclaimed to a condition amenable to future use for public outdoor recreation. Reclamation performance and compliance with an approved Quarry Management Plan is a joint responsibilty of the MLPH and the Ministry of Energy, Mines and Petroleum Resources.

(b) Applications for Crown land lease or license of occupation for recreational use and facility development must be accompanied by a Management Plan which includes maps and details of facility design and development, and sequence of development.

(c) Pursuant to MLPH policy, the disposition of RCMA lands to non-profit organizations will generally be made directly to local government, who will in turn arrange for management and development of the lands for the organization.

(d) All Crown land applications for recreational leases or reserves for RCMA lands shall be referred to the Parks and Outdoor Recreation Division, MLPH, and the Regional District for review and comment as well as to the Heritage Conservation Branch for heritage resource impact considerations.

(e) Applications for recreational uses of RCMA lands by local government must be submitted pursuant to resolution of Council and shall be processed and adjudicated according to MLPH policy on institutional use.

(f) Existing grazing tenures on RCMA lands shall be reviewed by the Regional Director, MLPH, in consultation with the Ministry of Forests, to evaluate their compatibility with the maintenance of the recreation and conservation resources of the affected lands.

5.7 Wildlife Habitat Management Area (WHMA)

5.7.1 Definition

Crown lands considered both suitable for wildlife habitat use and important to the continuous production, maintenance and conservation of local and regional wildlife resources. This includes Crown land held pursuant to Section 101 of the Land Act (transfer of administration).

5.7.2 Purpose

(a) To promote the use of Crown land for long-term management of wildlife resources to satisfy the recreational, aesthetic, environmental and economic needs of local and regional residents.

(b) To protect critical Crown wildlife habitats, particularly winter ranges, from conflicting or incompatible resource management activities and competing land uses.

(c) To secure suitable Crown wildlife habitat lands for intensive management by the agency directly responsible for wildlife conservation and management in B.C.

5.7.3 Responsible Agency

B.C. Ministry of the Environment, Fish and Wildlife Branch assumes responsibility for management of WHMA lands.

5.7.4 Permitted Uses and Activities

(a) Wildlife habitat management and enhancement programs of government.

(b) Wildlife management programs and activities of government pursuant to the B.C. Wildlife Act.

(c) Non-tenured public recreational uses and activities compatible with wildlife habitat and wildlife management programs. Generally land-extensive, non-motorized and facility-independent activities.

(d) Watershed management activities of the Ministry of Environment.

5.7.5 Conditional Uses and Activities

(a) Timber harvesting activities and the grazing of domestic livestock may be permitted subject to conditions imposed by the responsible agency respecting objectives and programs for wildlife habitat management.

(b) Resource-related industrial uses of a temporary or transient nature may be permitted in association with forest harvesting activities subject to conditions imposed by the Ministry of the Environment in association with the Ministry of Forests and consistent with local government zoning restrictions.

(c) Sand and gravel extraction may be permitted on WHMA lands provided that the size and quality of the aggregates warrant removal and the extraction operation does not unduly disturb existing wildlife habitat values.

(d) Linear developments and roadways and their associated rights-of-way and easements may be permitted, subject to:

(i) conformance with impact mitigation, reclamation, aesthetic, or other requirements specified by the Ministry of the Environment; and

(ii) conformance with performance requirements respecting linear developments as outlined in Section 5.2.9, General Provisions.

5.7.6 Management and Planning Guidelines

(a) Habitat Management Plans should be prepared for WHMA lands by the Fish and Wildlife Branch and with assistance from advisory committees of local residents and associated government agencies. These plans will identify guidelines and approaches to habitat enhancement in the subject areas. The plans should indicate the necessity for, as well as the nature and timing of, timber harvesting activities and grazing schedules on WHMA lands.

(b) Timber harvesting activities, if deemed necessary, shall be co-ordinated through the Ministry of Forests and performed according to an acceptable cutting and reforestation plan.

(c) Existing grazing tenures in lands designated WHMA shall be reviewed by the Fish & Wildlife Branch in conjunction with the tenure-issuing agency to evaluate their compatibility with the stated purpose of this land category.

5.8 Aggregate Management Area (AMA)

5.8.1 Definition

Crown lands considered to have a high capability for aggregate resource extraction and which are currently held under the Land Act, Section 12, for sand and gravel purposes, but not located within or adjacent to IFMA lands.

5.8.2 Purpose

(a) To ensure that Crown lands with high aggregate resource values are identified and reserved for future use by private and public interests.

(b) To protect areas with high aggregate resource values from development before the aggregates can be extracted.

(c) To identify specific areas currently under Section 12, Land Act reserves for sand and gravel as Aggregate Management Areas.

5.8.3 Responsible Agency

The Lands and Housing Regional Operations Division, MLPH, retains responsibility for the administration of sand and gravel extraction tenures to the private sector including the collection of royalty fees. The Ministry of Transportation and Highways assumes responsibility for the development and reclamation of pits operated under its jurisdiction.

5.8.4 Permitted Uses and Activities

(a) Aggregate resource extraction operations and associated land uses.

(b) Full range of extensive, recreational activities by the general public subject to conditions imposed by the responsible agency.

(c) Fish and wildlife management and enhancement activities of the Fish and Wildlife Branch may be permitted in conjunction with programs on adjacent lands.

5.8.5 Conditional Uses and Activities

(a) Timber harvesting activities and the grazing of domestic livestock may be permitted subject to the approval of the Regional Director, MLPH, and the stipulations of the Forest Act.

(b) Minimal facility development for extensive recreation uses, such as ski-touring and hiking trail systems and day-use recreation areas, may be permitted provided that:

(i) development is undertaken by local government, community, or a non-profit recreational organization;

(ii) development is compatible with the natural environment and recreation resource values of the land under application; and

(iii) the proposed facility development has the approval of local government and the Parks and Outdoor Recreation Division, MLPH.

(c) Linear developments and roadways and their associated rights-of-way and easements may be permitted, subject to:

(i) conformance with MLPH policy and procedures governing such developments; and

(ii) conformance with performance requirements respecting linear developments as outlined in Section 5.2.9, General Provisions.

5.8.6 Management and Planning Guidelines

(a) Consideration should be given to the subsequent land use of the aggregate area during the development planning stage so that the management and planning guidelines of the appropriate plan designation can be pursued.

(b) The sand and gravel extraction areas shall be subject to the Ministry of Lands, Parks and Housing policies respecting royalties, development plans and reclamation requirements.

(c) The management of timber, if deemed necessary, shall be coordinated by the Ministry of Forests according to an acceptable cutting and reforestation plan.

(d) Subject to Ministry of Forests and MLPH policies and programs, reclamation of the aggregate development sites to a condition suitable for reforestation may be required.

(e) Grazing tenures shall be administered according to the existing Subsidiary Agreement with Ministry of Forests on grazing.

PART 6.0 PLAN IMPLEMENTATION, REVIEW AND AMENDMENT

6.1 Plan Adoption

(a) Upon adoption by the Ministry of Lands, Parks and Housing, the Crown land base shall be secured for the assigned land uses and activities through the appropriate Land Act Map Reserves and Land Act Designations specified under the Plan for each land category.

(b) The existing Land Act Section 12 Reserve established over the plan area for the purpose of withdrawing Crown land from agricultural, residential and recreational use applications shall be cancelled upon formal adoption of this Plan.

(c) The Ministry of Forests shall, upon formal adoption of this Plan, initiate an Order(s)-in-Council establishing a Provincial Forest(s) in the plan area consistent with the boundaries of the Integrated Forest Management Area designated in the Plan.

(d) Local government is encouraged to utilize the information provided by this Plan in the preparation and refinement of zoning by-laws and Official Settlement Plans. Zoning and Official Settlement Plan amendments shall be proposed by the Ministry of Lands, Parks and Housing wherever subsequent zoning by-laws and settlement plans prove inconsistent or incompatible with the provisions of this Plan.

6.2 Plan Period and Formal Review

(a) The Plan shall be in effect for a period of twenty years from the date of its formal adoption.

(b) A comprehensive formal review of this Plan shall be initiated five years from the date of its formal adoption and every five years thereafter. The review shall be initiated by the Ministry of Lands, Parks and Housing and accomplished with the assistance of those agencies who have participated in the preparation of this Plan and others subsequently deemed to have an interest in Crown land use in the plan area.

6.3 Plan Refinement and Amendment

(a) The Ministry of Lands, Parks and Housing shall continue to expand, update and refine its information base for the plan area, with the co-operation and assistance of other government agencies and the private sector.

(b) The Regional Director, MLPH, may propose a formal amendment to this Plan where a Plan provision or designation proves unnecessary or is modified by changes in government policy or new information. Minor amendments shall normally occur on a yearly basis. The amendment and supporting documentation shall, if deemed necessary, be reviewed and endorsed by the Executive Committee of the MLPH. Necessary amendments to the appropriate Land Act reserve and designation boundaries shall be made by the Regional Director.

(c) A Crown land applicant or development proponent may make formal request to the Regional Director of the agency responsible for administration of the subject area for an amendment to the Plan. The applicant or proponent shall be required to provide the necessary supporting information and rationale for amendment. The Regional Director, if supportive of the amendment, shall propose formal Plan amendment to the Regional Director, MLPH, for consideration.

(d) All Plan amendments shall be consistent with the goal and objectives of the Plan and with the mandate and responsibilities of the Ministry of Lands, Parks and Housing.

6.4 Land Application Appeals

Land use decisions made pursuant to the Land Act and based on this Plan, may be appealed by aggrieved applicants through formal application to amend the Plan as outlined in Section 6.3 (c), Plan Refinement and Amendment. Where the applicant's grievance is not resolved with the Regional Director, the appellant may request a formal appeal review by the Land Application Appeal Committee. The committee provides the Minister with recommendations in the arbitration of Land Act appeals.

6.5 Implementation Process

All Crown land in the Plan Area is withdrawn from disposition per Section 13 of the Land Act for the specific use shown on the Plan Map, permitted and conditional uses are described in Part 5.0.

All reserves have been reviewed within the Plan Area and with the exception of the Integrated Forest Management Area, the land has been assigned to a specific land use designation pursuant to Section 13 of the Land Act.

Those existing reserves located within the Integrated Forest Management Area, specifically the Lily Lake and Tachick grazing reserves and all gravel reserves, will remain under Section 12 of the Land Act, while the Lieutenant-Government-in-Council of the Wren and Kori Community Pasture reserves will remain under the provisions of Section 11 of the Land Act.

The administration of the Crown land in the vicinity of the Stellako River had been transferred, pursuant to Section 101 of the Land Act, to the Ministry of Environment prior to the initiation of this plan. This Section 101 transfer of administration shall be maintained.

APPENDIX A

FOREST VALUES

FOREST VALUES

TABLE A-1
MERCHANTABLE VOLUMES AND MEAN ANNUAL INCREMENTS
SELECTED BLOCKS WITHIN THE VANDERHOOF PLAN AREA*

BLOCK	MERCH. M^3*	MEAN ANNUAL INCREMENTS M^3/year	BLOCK	MERCH. M^3*	MEAN ANNUAL INCREMENTS M^3/year
1	22,694	346	9	9,716	184
2	18,262	196	10	8,515	104
3	25,759	698	11	2,044	46
4	1,941	18	12	141,225	2,481
5	151,980	2,693	13	26,361	493
6	39,086	602	14	12,163	198
7	86,248	1,509	15	18,177	339
8	23,543	317			
			TOTAL	587,714	10,224

* See map on page A-2.

* Merchantable volume is based on inventory figures and reduced to show T.S.A. constraints, therefore figures are net volumes.

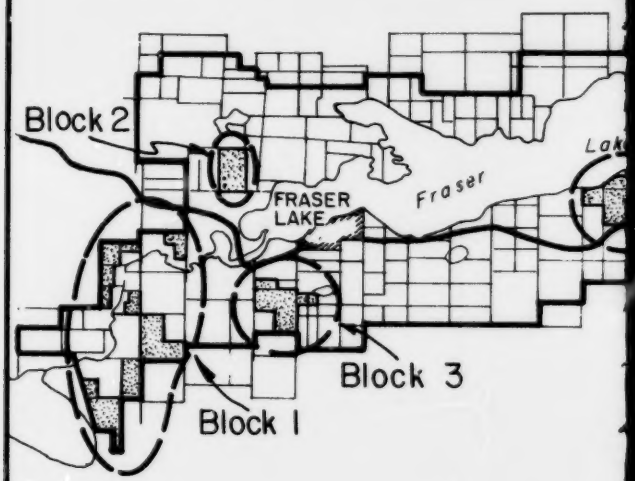
TABLE A-2
FOREST CAPABILITY AND FOREST STOCK CHARACTERISTICS
LILY LAKE / HOLY CROSS AREA (Continued)

PARCEL ALL COAST RANGE 4	FOREST C.L.I. CAPABILITY	FOREST STOCK CHARACTERISTICS					
		VOLUME (m^3) MATURE	MAI (m^3) / Year	SITE CLASS (Ha) G	M	P	N.P.
Tp 9, SW 1/4 Sec 16	4	8,006.			64	60	12
Tp 9, SW 1/4 Sec 7	4	12,053.	214.2	3	226	21	9
Tp 9, SW 1/4 Sec 8	4	21,525.		122	120	27	3
Tp 9, E 1/2 Sec 6	4	3,210.	86.8	2	92	34	1
Tp 9, E 1/2 Sec 31	4	19,294.			231	14	27
Tp 9, SE 1/4 Lot 295	4				28	14	23
Tp 9, SE 1/4 Lot 294	4	2,362.			54		14
Tp 9, SE 1/4 Lot 293	4				30	29	
Tp 9, SE 1/4 Lot 290	3/4	18,112.			262	10	
Tp 9, SE 1/4 Lot 533	4/3	6,500.	89.5		117	141	
Tp 9, SE 1/4 Lot 532	3/4	9,844			89	20	
Tp 9, SE 1/4 Lot 292	3/4	919.			51	32	
Tp 9, SE 1/4 Lot 291	5	1,312.			45	14	
Tp 9, SE 1/4 Lot 535	4	8.093	107.	12	154	86	7
Tp 9, SW 1/4 Lot 536	4	522.	8.3		61	3	
Tp 9, SW 1/4 Lot 538	5	7,724.	179.2	54	127	65	
Tp 9, SW 1/4 Lot 537	4				39	9	
Tp 9, W 1/2 Lot 1111	4	8.	2.1		44	31	

TABLE A-2
FOREST CAPABILITY AND FOREST STOCK CHARACTERISTICS*
LILY LAKE / HOLY CROSS AREA (BLOCK 5)

PARCEL ALL COAST RANGE 4	FOREST C.L.I. CAPABILITY*	FOREST STOCK CHARACTERISTICS					
		VOLUME (m^3) MATURE	MAI (m^3)	SITE CLASS (Ha) G	M	P	N.P.
Tp 11, SW 1/4 Sec 35	4	2,659.	45.5	13	11	8	1
TP 11, N 1/2 Sec 36	4	1,435.	12.3		6	38	9
Tp 11, N 1/2 Sec 26	4	10,418.	205.4	6	147	96	11
Tp 11, E 1/2 Sec 25	4	4,583.	90.3		43		
Tp 11, E 1/2 Sec 21	4	15,470.	163.8		84	167	7
Tp 11, N 1/2 Sec 22	7	2,394.	22.1		40	68	17
Tp 11, S 1/2 Sec 23	4	0			40		33
Tp 11, S 1/2 Sec 16	4	3,238.	71.4		71	36	19
Tp 11, E 1/2 Sec 15	4	6,927.	132.3		106		13
Tp 11, E 1/2 Sec 14	4	0.			122		
Tp 11, E 1/2 Sec 13	4	0.			255	7	10
Tp 11, S 1/2 Sec 8	4	10,542.	151.6		101		13
Tp 11, S 1/2 Sec 9	4/6	17,488.	294.4		229	8	17
Tp 11, NW 1/4 Sec 10	4	3,304.	65.1		44		14
Tp 11, NW 1/4 Sec 6	6	4,412.	52.5		69	167	17
Tp 11, NW 1/4 Sec 5	6	320.	6.3		209	24	20
TP 11, NW 1/4 Sec 4	4	0.			158	16	4
Tp 9, NW 1/4 Sec 31	4	61,950.			213	33	21
Tp 9, NW 1/4 Sec 32	4	12,031.		8	177	40	48
Tp 9, NW 1/4 Sec 30	4	0.			268		4
Tp 9, NW 1/4 Sec 29	4	0.			259		13
Tp 9, SW 1/4 Sec 28	4	0.			44		24
Tp 9, SW 1/4 Sec 19	4	10,762.			175		29
Tp 9, SW 1/4 Sec 20	4	0.			262		10
Tp 9, SW 1/4 Sec 21	4	29,662.			226	10	36
Tp 9, SW 1/4 Sec 18	4	16,275.			248	21	3
Tp 9, SW 1/4 Sec 17	4	23,756.			250	20	2

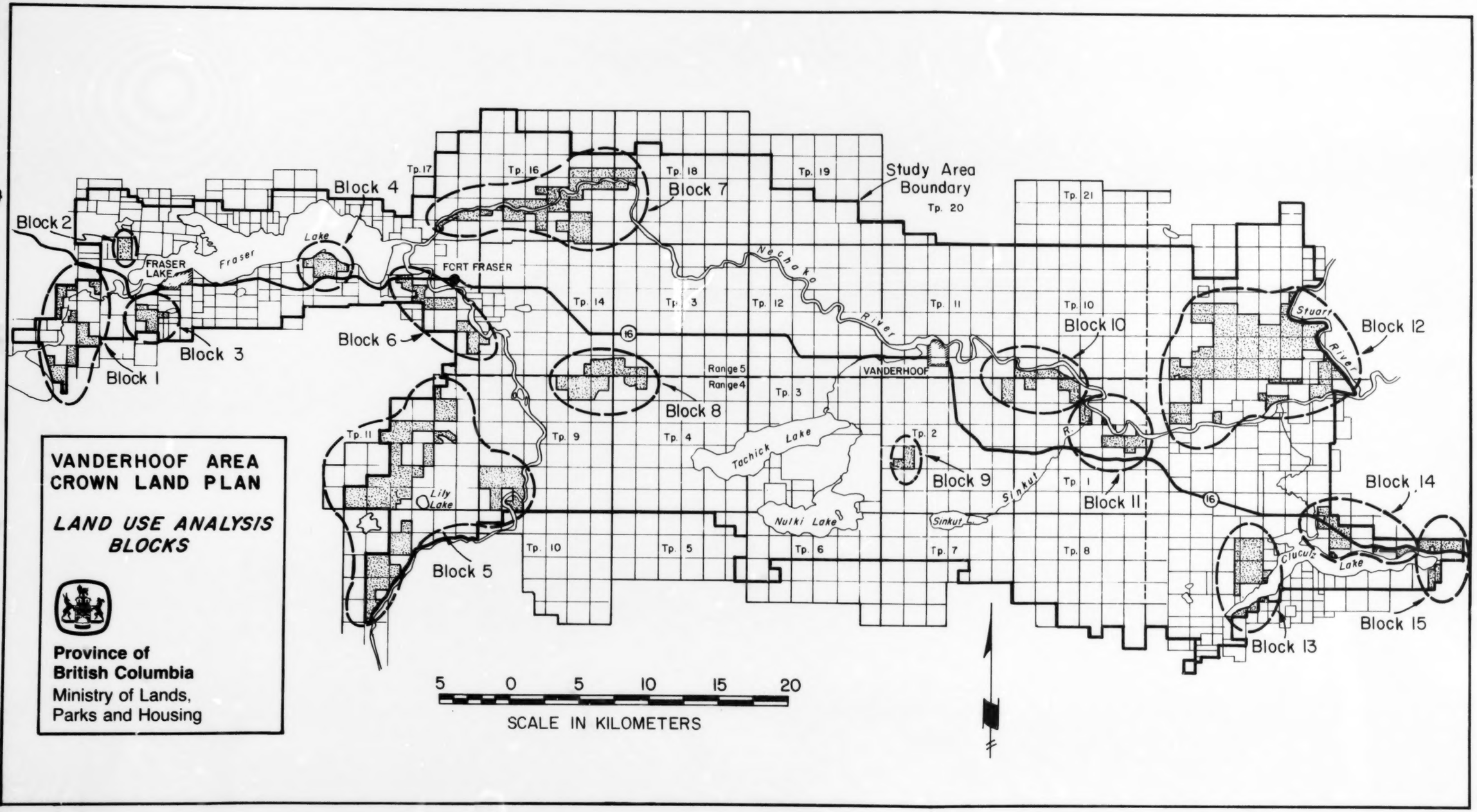
* This Table is included as an illustration of how the forest resource values were determined, however, the information is not complete.



VANDERHOOF AREA CROWN LAND PLAN

LAND USE ANALYSIS BLOCKS

Province of British Columbia
Ministry of Lands, Parks and Housing



VANDERHOOF AREA CROWN LAND PLAN

LAND USE ANALYSIS BLOCKS

Province of British Columbia
Ministry of Lands, Parks and Housing

FORESTRY CAPABILITY MAPS

Descriptive Legend

In this classification, all mineral and organic soils are grouped into one of seven classes based upon their inherent ability to grow commercial timber. The best lands of Canada for commercial tree growth will be found in Class 1 and those in Class 7 cannot be expected to yield timber in commercial quantities; these represent the extremes. Because of unsuitable climate, no Class 1 lands will be found in several regions of Canada and in certain regions the Class 2 areas will be too small to show at the chosen scales of mapping.

All known or inferred information about the unit, including subsoil, soil profile, depth, moisture, fertility, landform, climate and vegetation.

Associated with each capability class is a productivity range based on the mean annual increment of the best species or group of species adapted to the site at or near rotation age. Productivity classes are expressed in gross merchantable cubic foot volume to a minimum diameter of four inches. Thinnings, bark and branch wood are not included. The productivity as expressed is that of "normal" i.e. fully-stocked stands. It may be assumed that only good management would have produced stands of this nature.

The following are not considered: location, access, distance to markets, size of units, ownership, present state or special crops such as Christmas trees.

The classes are based on the natural state of the land without improvements such as fertilization, drainage or amelioration practices. It is realized that with improved forest management the productivity may change; to the extent that the limitations shown in the symbol may be altered, class changes may also take place. However, significant changes will only be achieved through costly and continuing practices.

Class 1 **Lands Having No Important Limitations To The Growth Of Commercial Forests**

Soils are deep, permeable, of medium texture, moderately well-drained to imperfectly drained, have good water-holding capacity and are naturally high in fertility. Their topographic position is such that they frequently receive

seepage and nutrients from adjacent areas. They are not subject to extremes of temperature or evapotranspiration. Productivity will usually be greater than 111 cubic feet per acre per year.

When required, this class may be subdivided on the basis of productivity into classes 1 (111 to 130), 1a (131 to 150), 1b (151 to 170), 1c (171 to 190), 1d (191 to 210) and by 20 cubic foot classes thereafter, as necessary.

Class 2 **Lands Having Slight Limitations To The Growth Of Commercial Forests**

Soils are deep, well-drained to moderately well-drained, of medium to fine texture and have good water-holding capacity.

The most common limitations (all of a relatively slight nature) are: adverse climate, soil moisture deficiency, restricted rooting, depth, somewhat low fertility, and the cumulative effects of several minor adverse soil characteristics. Productivity will usually be from 90 to 110 cubic feet per acre per year.

Class 3 **Lands Having Moderate Limitations To The Growth of Commercial Forests**

Soils may be deep to somewhat shallow, well to imperfectly drained, of medium to fine texture with moderate to good water-holding capacity. They may be slightly low in fertility or suffer from periodic moisture imbalances.

The most common limitations are: adverse climate, restricted rooting depth, moderate deficiency or excess of soil moisture, somewhat low fertility, impeded soil drainage, exposure (in maritime areas) and occasional inundation. Productivity will usually be from 71 to 90 cubic feet per acre per year.

Class 4 **Lands Having Moderately Severe Limitations To The Growth Of Commercial Forests**

Soils may vary from deep to moderately shallow, from excessive through imperfect to poor drainage, from coarse through fine texture, from good to poor moisture holding capacity, from good to poor structure and from good to low natural fertility.

The most common limitations are: moisture deficiency or excess, adverse climate, restricted rooting depth, poor structure, excessive carbonates, exposure or low fertility. Productivity will usually be from 51 to 70 cubic feet per acre per year.

Class 5 **Lands Having Severe Limitations To The Growth Of Commercial Forests**

Soils are frequently shallow to bedrock, stoney, excessively or poorly drained of coarse or fine texture, may have poor moisture holding capacity and be low in natural fertility.

The most common limitations (often in combination) are: moisture deficiency or excess, shallowness to bedrock, adverse regional or local climate, low natural fertility, exposure particularly in maritime areas, excessive stoniness and high levels of carbonates. Productivity will usually be from 31 to 50 cubic feet per acre per year.

Class 6 **Lands Having Severe Limitations To The Growth Of Commercial Forests**

The mineral soils are frequently shallow, stoney, excessively drained, of coarse texture and low in fertility. A large percentage of the land in this class is composed of poorly drained organic soils.

The most common limitations (frequently in combination) are shallowness to bedrock, deficiency or excess of soil moisture, high levels of soluble salts, low natural fertility, exposure, inundation and stoniness. Productivity will usually be from 1 to 30 cubic feet per acre per year.

Class 7 **Lands Having Severe Limitations Which Preclude The Growth Of Commercial Forests**

Mineral soils are usually extremely shallow to bedrock, subject to regular flooding or contain toxic levels of soluble salts. Actively eroding or extremely dry soils may also be placed in this class. A large percentage of the land is very poorly drained organic soils.

The most common limitations are: shallowness to bedrock, excessive soil moisture, frequent inundation, active erosion, toxic levels of soluble salts, and extremes of climate or exposure. Productivity will usually be less than 10 cubic feet per acre per year.

APPENDIX B

RANGE VALUES

RANGE VALUES

TABLE B-1
RANGE VALUES
SELECTED BLOCKS WITHIN THE VANDERHOOF PLAN AREA*

BLOCK	A.U.M.	BLOCK	A.U.M.
1	403	9	90
2	0	10	634
3	235	11	269
4	0	12	230
5	3,948	13	292
6	321	14	0
7	1,504	15	0
8	0		
		TOTAL	8,736

* See map on page A-2.

APPENDIX C

PUBLIC PARTICIPATION PROGRAM

PUBLIC PARTICIPATION PROGRAM

SUMMARY OF COMMENTS
STAGE I

I District Municipality of Vanderhoof (Council Meeting)

(a) Council members do not want to see subdivision developments of lower standards adjacent to the District Municipality's boundaries.

(b) The Mayor is in favour of the disposition of arable Crown land complete with the timber rather than through an agricultural policy which separates the timber from the agricultural parcel.

II Village of Fraser Lake (Council Meeting)

The Council of the Village of Fraser Lake expressed its appreciation with the introduction to the Crown Land Plan but did not have any specific comments to make with regard to the terms of reference.

III Vanderhoof Area Advisory Planning Commission

(a) The definition of "arable" was questioned by some Commission members who noted that land classified non-arable by government authorities is often needed by neighbouring farmers for pasture.

(b) A concern was expressed that forestry can still claim land in the Settlement Area, but farmers cannot easily get land from the Provincial Forest Reserve.

(c) Another concern was that the Fish and Wildlife Branch can have Crown land reserved and that the Ministry of Highways can put in access roads (thereby fragmenting farming units) over the objection of locals and without the approval of the Agricultural Land Commission.

(d) Some present felt that too much land is reserved for the Ministry of Highways, some of which may not even have any aggregate sources.

(e) Consideration should be given to provisions for pig farms, feedlots, etc. on non-arable lands in agricultural areas and to restrict settlement in the vicinity.

IV Fraser Lake Area Advisory Planning Commission

(a) The Commission recognizes that there is very little arable vacant Crown land remaining within the Vanderhoof Area.

(b) They are concerned with the method of disposition of agricultural land. They are wary of the separate auction procedure for timber and agricultural land being tested in the Prince George area, but understand that this Crown Land Plan will support and reinforce existing MLPH policies.

(c) Some Commission members felt that the Regional District's rural residential zoning is too restrictive. They were informed that while suitable Crown land will be designated for rural residential uses, an application for a zoning by-law ammendment will be required for all Crown land not currently zoned rural residential prior to the MLPH initiating specific development proposals.

V Nechako Valley Regional Cattlemen's Association

(a) The Chairperson of the Land Use Sub-Committee, in presenting a brief concerning arable Crown land disposition in the Prince George area, stated that farmers are generally pleased with the separate disposition policy for timber and land, but the Sub-Committee would continue to monitor the results of the logging and rooting operations.

(b) The Association expressed their appreciation for the presentation concerning the proposed Vanderhoof Area Crown Land Plan and instructed the Land Use Sub-Committee to review the proposal in more detail.

VI Public Open House Meeting

The open house consisted of an informal presentation of information brochures, display posters and maps. Land Branch staff were on hand to answer questions. Overall attendance was quite low, totalling approximately 25 individuals. Farmers/ranchers accounted for about 75 percent of total attendance.

(a) Those in attendance seemed not to have any objections to a public auction as the means of disposition once informed that the amount of Crown land to be designated for agriculture will most likely total less than ten sections.

(b) Grazing issues received substantial attention. A common point raised by those in attendance was that grazing rights over class 5 lands are an essential component of farming/ranching establishments. They are not satisfied with short-term permits and licences; long-term tenures are required before improvements can be justified. Ministry staff explained that the plan guidelines address grazing issues, however, the range of alternatives would be narrow since the Ministry of Forests is responsible by legislation for community pastures, ranges and most forms of grazing tenures.

(c) A couple of people expressed a concern that not enough attractive rural residential lots can be found close to Vanderhoof. They suggested that people tie up and under-utilize 64 hectare parcels in the outlying countryside because there is a lack of good 2 - 4 hectare parcels close to town. Ministry staff indicated that although residential land uses are a primary concern, there is very little Crown land suitable for residential purposes in the immediate vicinity of Vanderhoof.

VII Written Briefs/Comments Submitted To The Ministry of Lands, Parks and Housing

No written briefs or comments were submitted to the Ministry of Lands, Parks and Housing following the public participation program.

SUMMARY OF COMMENTS

STAGE II

I Regional District of Bulkley Nechako

A joint meeting was held with the local Directors of the Regional District and the local Advisory Planning Commissions (Vanderhoof and Fraser Lake A.P.C.'s). The response to the plan presentation was very positive. The chief comments raised by the interest groups are as follows:

(a) Aggregate sites for the public should be identified and sand and gravel sources should not all be secured for the use by the Ministry of Transportation and Highways.

(b) Considerable discussion evolved around the definition of arability. They wished to know what criteria the Ministry uses in determining arability and suggested these standards be changed to include improved pasture.

(c) It was suggested that the Ministry reconsider the SRA designated for District Lot 2019 and designate it ADA (note: the designation has since been changed to ADA).

(d) It was recognized that the amount of arable Crown land within the plan area is limited. Consequently, they wanted to know whether the Ministry of Forests is prepared to remove arable Crown land from the Forest Reserve when the need arises.

II Village of Fraser Lake (Council Meeting)

The Village Council of Fraser Lake welcomed the presentation of the Vanderhoof Area Crown Land Plan by the Ministry staff. No objections were raised. A suggestion was made to have the Crown Land Plan use designations protect watersheds from pollution and to establish reserves over those areas likely to be used as future potable water supplies.

III District Municipality of Vanderhoof

The District Municipality of Vanderhoof declined the offer of a presentation of the draft plan since they have representation on the Regional District board and thus participated in an earlier presentation.

IV Nechako Valley Regional Cattlemen's Association

Ministry representatives attended the annual Regional Cattlemen's Association meeting held just prior to the public open house in order to answer any questions concerning the Vanderhoof Area Crown Land Plan. A brief discussion took place with regard to the pre-clearing policy which is currently under review in the Prince George area. A couple of members questioned whether this policy would be "pushed" in the Vanderhoof area. Mr. Frank Dangel, President of the B.C. Cattlemen's Association, advised that the Association supported the concept of first selling the timber and then selling the land to the highest bidders, however, the Association also felt that the land should be cleared by the person who was going to farm/ranch the land.

V Public Open House

Most of the comments raised at the open house concerned the agricultural disposition policies, both past and present, of the Ministry. All of the policies received both favourable and unfavourable comments. Generally, the farmers/ranchers in attendance preferred the eligibility requirements of earlier disposition policies. From the attendance of sixty people at the open house, only three written submissions were received. Two expressed their displeasure with the agricultural policy. The third related to a status correction.

IV Written Briefs/Comments Submitted to the Ministry of Lands, Parks and Housing Following the Open House

Only two written submissions were received by the Ministry of Lands, Parks and Housing following the public participation program. The first was a statement of interest in a specific parcel of Crown land for agricultural purposes. The second was a lengthy submission dealing with a number of issues including lease applications, the public participation program, management of forests and agricultural policy.

APPENDIX D

SETTLEMENT RESERVE AREAS

DEVELOPMENT OPTIONS

SETTLEMENT RESERVE AREAS

DEVELOPMENT OPTIONS

The main purpose of the Crown Land Plan is to allocate all Crown land to one of six broad land use designations. The Settlement Reserve Area (SRA) designation reserves Crown land for seven primary land uses; rural residential, commercial, industrial, cottages, community use, intensive agriculture (eg. feed lots) and waste disposal. Although it is not the intent of this plan to propose specific development strategies for each SRA, the development options considered, at this time, to be compatible with the character of the land and the surrounding land uses are listed in Table D-1.

TABLE D-1
SETTLEMENT RESERVE AREAS
DEVELOPMENT OPTIONS

Settlement Reserve Area	Rural Residential	Commercial	Industrial	Cottages	Community Use	Intensive Agriculture	Waste Disposal	Recreation & Conservation	Grazing	Aggregates
1. SE 1/4 of DL 2555, Range 5, Coast	*				+		+			+
2. NW 1/4 of DL 2559, Range 5, Coast	*				+		+		+	
3. Portions of E 1/2 of DL 2558, R5C	*				+		+	+		
4. DL 2194, Range 5, Coast	+			*				+		
5. Portions of S 1/2 of DL 3213, R5C				*				+		
6. Portions of DL 2861, 2862, R5C	*				+					
7. Portions of Sec 22, Twp 15, R5C			*			+				
8. Portions of Sec 23, Twp 15, R5C	*							+		
9. Portions of Sec 25, Twp 15, R5C	*				+					
10. Portions of Sec 7, Twp 14 and Secs 12 and 13, Twp 15, R5C	*								+	
11. NW 1/4 of Sec 32 and prtns of Sec 31, Twp 4, Range 4, Coast	*							+		

* Primary land use consideration
\+ Secondary land use consideration

(Continued...)

TABLE D-1
SETTLEMENT RESERVE AREAS
DEVELOPMENT OPTIONS (Continued)

Settlement Reserve Area	Rural Residential	Commercial	Industrial	Cottages	Community Use	Intensive Agriculture	Waste Disposal	Recreation & Conservation	Grazing	Aggregates
12. Prtns. Blk A, Sec. 17, Twp 13, R5		•								
13. W 1/2 of Sec. 17 & SE 1/4 & S 1/2 of NE 1/4, Sec. 18, Twp 2, R4C					•	•	•			
14. E 1/2 of Sec 36, Twp 2, R4C and prtns of W 1/2, Sec 6, Twp 10 R5C	•							•	•	
15. NW 1/4 of NW 1/4 of Sec 15, Twp 1 Range 4, Coast		•								
16. Prtns of E 1/2 of NE 1/4 of Sec 16, Twp 8, Range 4, Coast					•					•
17. Prtns of Blk B, DL 1140 and E 1/2 of SW 1/4 of DL 1136, Cariboo				•	•					•
18. Prtns of DL 1139, Cariboo				•	•					
19. Prtns of NE 1/4 of DL 946, of DL 1416 and of the N 1/2 of DL 1422, Cariboo	•			•	•					
20. Prtns of SW 1/4 of DL 1422, Car.					•					
21. Prtns of N 1/2 of DL 1719, Car.				•	•					

APPENDIX E

PLAN TEAM AND INTER-AGENCY TASK FORCE

PLAN TEAM AND INTER-AGENCY TASK FORCE

I. Ministry of Lands, Parks and Housing - Plan Team Members

Name	Representing
K. Ohlemann, Senior Regional Planner, Prince George	Omineca Regional Office
R. Heikkila, Assistant Regional Planner, Prince George	Omineca Regional Office
with valuable support from:	
D. Schlitt, word processing	Omineca Regional Office
P. Tusar, drafting	Land Programs Branch
K. Johnson, drafting	Private Consultant, Prince George

II. Inter-Agency Task Force Members

K. Ohlemann, Chairman	M.L.P.H., Lands & Housing Regional Operations Div.
R. Heikkila, Co-ordinator	M.L.P.H., Lands & Housing Regional Operations Div.
S.L. Mazur	M.L.P.H., Lands & Housing Regional Operations Div.
J. Turner (P. Ryks)	M.L.P.H., Lands & Housing Regional Operations Div.
G. Hutton (A. Watkins)	Min. of Agriculture & Food
N. Robertson (M. Connor)	Min. of Forests
K. Scofield (W. Horsnell)	Min. of Transportation and Highways
M. Murtha (D. Clarke)	M.L.P.H., Parks & Outdoor Recreation Div.
D. King (no alternate)	Min. of Environment

Name	Representing
C. Hawksworth (P. Ostergaard, T. Maftechuck)	Min. of Municipal Affairs
T. Faulkner (no alternate)	Min. of Energy, Mines and Petroleum Resources
D. McLellan (no alternate)	R.D. of Bulkley Nechako
M. Gillis (no alternate)	B.C. Agricultural Land Commission

VANDERHOOF AREA CROWN LAND PLAN MAP AND SUMMARY

Province of British Columbia
Ministry of Lands, Parks and Housing

HONOURABLE ANTHONY J. BRUMMET, MINISTER

AUGUST 1984

SUMMARY

The Challenge

In the past, sufficient Crown land was available to accommodate a wide range of uses. However, demands for the use of land and resources have increased dramatically in recent years and competition for one area of Crown land for several purposes is now common. Typical competing uses include agriculture, wildlife management, forestry, wilderness recreation, settlement, and watershed management. Faced with the challenge of allocating Crown land to its best use or uses, the Ministry of Lands, Parks and Housing, in co-operation with other ministries and local government, initiated the Vanderhoof Area Crown Land Plan.

Meeting the Challenge

The total Plan Boundary encompasses approximately 177,600 hectares (excluding municipalities, Indian Reserves, major lakes and rivers). Private land accounts for 101,850 hectares, Crown land under lease 24,040 hectares and vacant Crown land 51,710 hectares. The plan itself deals only with the 51,710 hectares of vacant Crown land, the majority of which is slated for Integrated Forest Management. It is, however, noteworthy that most of the 101,850 hectares of private land and 20,040 hectares of Crown land under lease are in use or being developed for agricultural purposes. In essence, all land suitable for agriculture, with the exception of the 3,160 hectares designated in the plan for agricultural development, have already been disposed by the Ministry of Lands, Parks and Housing.

The Vanderhoof Area Plan identifies combinations of uses to which Crown land will be allocated within the plan area. This is achieved through an evaluation of the resource base, present land use patterns, economic activity, public comments and an identification of the requirements for the future use of land and its resources.

The Plan

The dominant land use categories identified for the Vanderhoof Area Crown Land Plan are indicated on the plan map. The following paragraphs summarize the use and management intent within each of the six areas. For more detailed information, the complete plan document should be consulted.

Settlement Reserve Areas (SRA) comprise 3.5 percent or 1,800 hectares of the vacant Crown land. The purpose is to maintain future land use options by reserving Crown land for future residential, commercial, industrial, institutional or recreational requirements and to eliminate conflict with resource uses.

Agricultural Development Areas (ADA) are considered most suitable for agricultural production, expansion and development of the agricultural industry in the Vanderhoof area. ADA lands entails 6.1 percent or 3,160 hectares of the vacant Crown land in the Plan Area. It is the intent to identify land for intensive agricultural development and promote the efficient disposition and development of suitable Crown land for agricultural purposes.

Integrated Forestry Management Areas (IFMA) are the most extensive within the Plan Area and are characterized by significant forest resources. The following are the land use categories:

IFMA - Forest Management Emphasis	49.9% or	25,820 ha.
IFMA - Community Pasture Emphasis	15.1% or	7,820 ha.
IFMA - Recreation & Conservation Emphasis	1.0% or	520 ha.
IFMA - Sand & Gravel Emphasis	.8% or	410 ha.

IFMA - Sand & Gravel Reserve

The dominant use is fore
other activities may be
integrated basis in associ
watershed, fish and w
recreation and conservation
extraction. Any single pur
settlement, will not be enc

**Recreation and Conservatio
(RCNA)** make up approximate
hectares of the vacant Cr
Crown lands are considered
outdoor recreation, heritag
fish and wildlife manage
camps and community recreat

Wildlife Habitat Managem
constitute 4 percent or 2,0
vacant Crown land and provi
tat for such wildlife speci
elk, bear, ducks, geese and
nant use of these areas is
enhancement of habitat to
dance of wildlife species.

Aggregate Management Area
lands considered to have
for sand and gravel extrac
.7 percent or 340 hectar
Crown land in the Plan.
aggregate resource extract
other land use activities

BENEFITS OF TH

Ensures Resources Are

For The Local Economy

The local economy is prima
forestry and agriculture.
Area Crown Land Plan ensur
is made available for th
current and future needs of
while protecting the land
use.

IFMA - Sand & Gravel Reserve 2.4% or 1,260 ha.

The dominant use is forest production but other activities may be permitted on an integrated basis in association with range, watershed, fish and wildlife, outdoor recreation and conservation, sand and gravel extraction. Any single purpose use, such as settlement, will not be encouraged.

Recreation and Conservation Management Areas (RCMA) make up approximately 3.7% or 1,940 hectares of the vacant Crown land. These Crown lands are considered most suitable for outdoor recreation, heritage site management, fish and wildlife management activities, camps and community recreation halls.

Wildlife Habitat Management Areas (WHA) constitute 4 percent or 2,040 hectares of the vacant Crown land and provide important habitat for such wildlife species as moose, deer, elk, bear, ducks, geese and swans. The dominant use of these areas is the protection and enhancement of habitat to maintain the abundance of wildlife species.

Aggregate Management Areas (AMA) are Crown lands considered to have a high capability for sand and gravel extraction encompassing .7 percent or 340 hectares of the vacant Crown land in the Plan. Associated with aggregate resource extraction, a range of other land use activities may be allowed.

BENEFITS OF THE PLAN

Ensures Resources Are Made Available For The Local Economy

The local economy is primarily dependent on forestry and agriculture. The Vanderhoof Area Crown Land Plan ensures that Crown land is made available for these uses to meet current and future needs of the local economy while protecting the land from inappropriate use.

Provides Better Service To The Public

The Vanderhoof Area Plan will permit improved service to the public when applications are made for the use of Crown land. Using the Plan, land administrators can respond more quickly to applications and better advise the public on locations where the probability of an application being approved is the highest.

Makes Crown Land Available

The Plan identifies specific areas for agricultural, settlement and outdoor recreation uses. Those lands slated for agricultural use would be disposed over the next few years.

Ensures More Effective Government

The Vanderhoof Area Crown Land Plan provides government agencies responsible for land and resources in the Plan Area with a means to co-ordinate their activities. By agreeing on priorities regarding the use of land and resources, government agencies can work together more effectively, focus efforts on areas of greatest need, and provide more accurate information to the public on land use in the Plan Area.

Copies of the Vanderhoof Area Crown Land Plan may be obtained from:

Ministry of Lands, Parks and Housing
Omineca Region
1011 4th Avenue
Prince George, B.C.
V2L 3H9

Phone: 562-8131

Vanderhoof Area Crown Land Plan

PROVINCE OF BRITISH COLUMBIA
Ministry of Lands, Parks and Housing
Lands and Housing Regional Operations
1984

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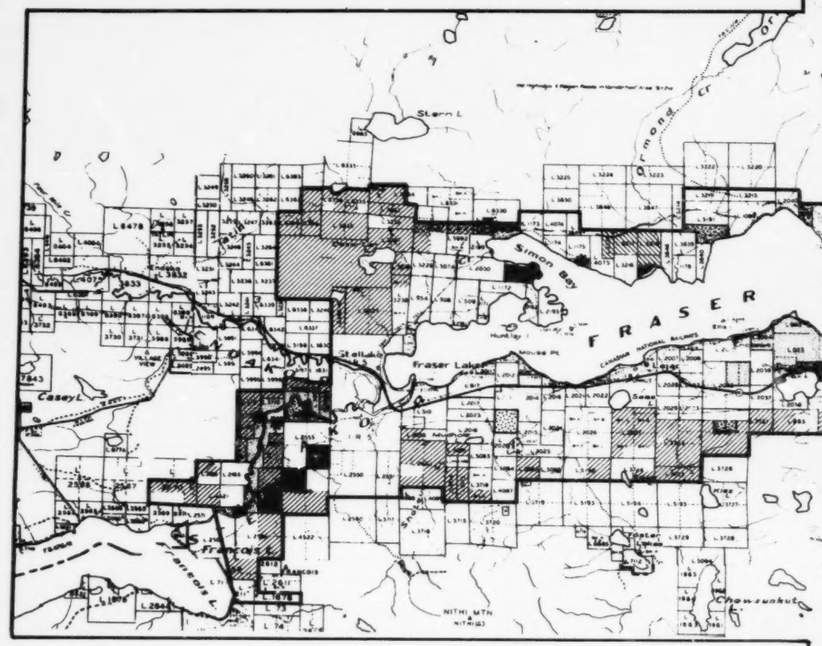

PLAN MAP MAP 10

- Agricultural Development Area
- Settlement Reserve Area
- Recreation and Conservation Management Area
- Wildlife Habitat Management Area
- Aggregate Management Area
- Integrated Forest Management Area
  - **forest management emphasis**
  - recreation and conservation emphasis
  - wildlife habitat emphasis
  - sand and gravel emphasis
  - sand and gravel reserve
  - **community pasture and grazing emphasis**
- **Excluded Land**: Private land and Crown Land reserved by Order-in-Council or committed to lease and lease-purchase agreements.
- Heritage Site

NOTE: Excluded lands designated for specific Crown land use or management on this map are not bound by policies or provisions of the Plan.

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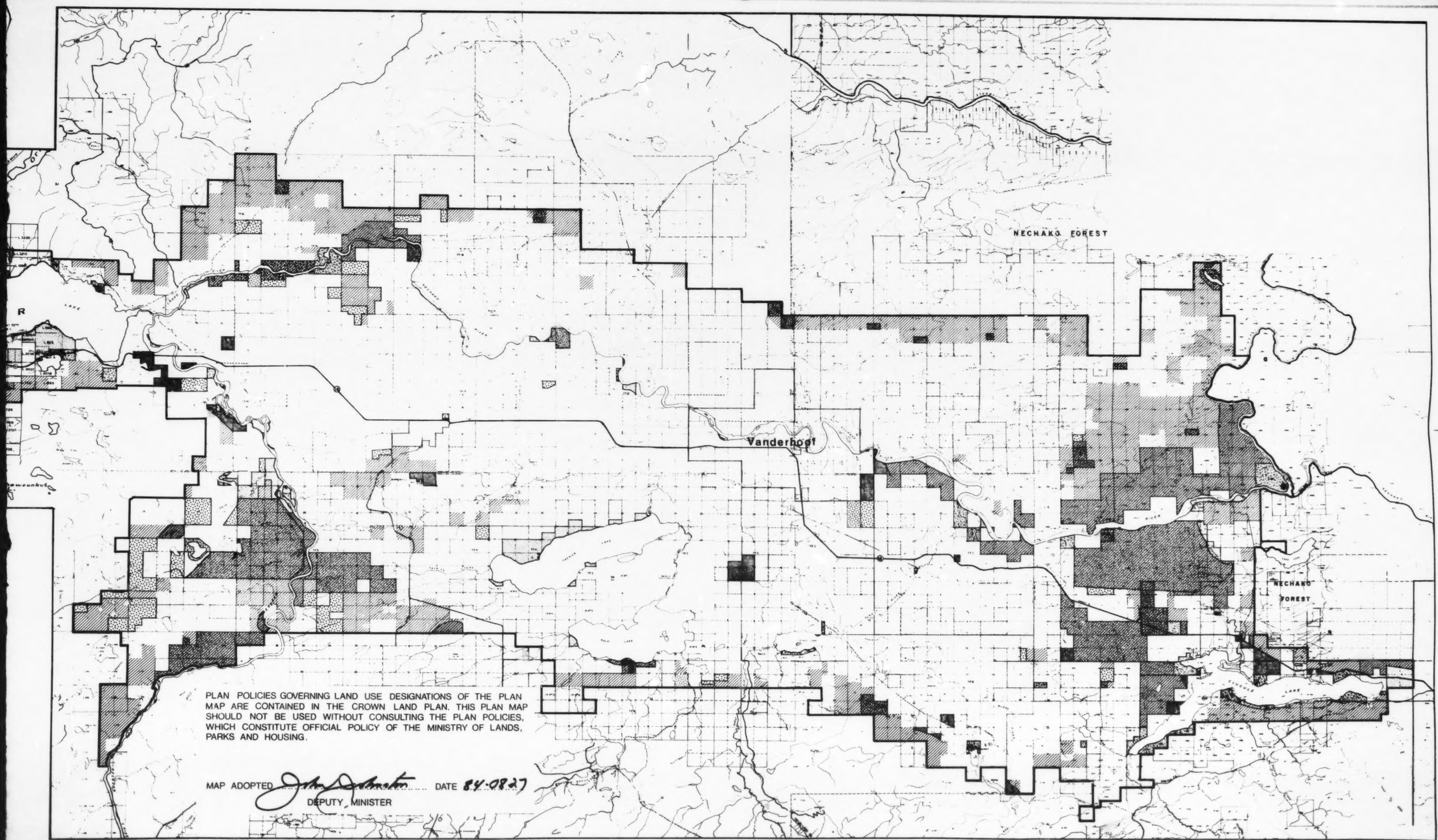

PLAN POLICIES GOVERNING LAND USE DESIGNATIONS OF THE PLAN MAP ARE CONTAINED IN THE CROWN LAND PLAN. THIS PLAN MAP SHOULD NOT BE USED WITHOUT CONSULTING THE PLAN POLICIES, WHICH CONSTITUTE OFFICIAL POLICY OF THE MINISTRY OF LANDS, PARKS AND HOUSING.

MAP ADOPTED ..... DATE 84-08-27

DEPUTY MINISTER

POOR

QUALITY

ORIGINAL